

THE SOCIO-CULTURAL INFLUENCES AND PROCESS OF LIVING WITH  
DIABETES FOR THE MIGRANT LATINO ADULT

by

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SIGNED: Dawn Marie Weiler

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## ABSTRACT

The purpose of this qualitative descriptive study was to explore the socio-cultural influences and social context associated with living with Type 2 Diabetes among migrant Latino adults. Extensive research in diabetes care has been conducted; however, there is a significant knowledge gap related to the factors that influence the achievement of glycemic control and self-management practices of the Latino population, in general, and migrant workers specifically. Based on well-documented disparities in complications and health outcomes among Latino adults compared to Anglo-American adults, there is sufficient evidence to question whether traditional Anglo beliefs about self-management are successful or appropriate for the migrant Latino population. Traditional models view self-management as an individual responsibility. Whether this view is congruent with the collectivist cultural tradition held by many Latino adults is unclear. Equally unclear is the degree to which using traditional Anglo-American models of self-management, in teaching about managing type 2 diabetes, influences health outcomes in this population. Culturally congruent care and nursing interventions involves much more than an understanding of language and dietary preferences. A qualitative descriptive study using grounded theory techniques was conducted to provide a comprehensive summary of events in the everyday terms of those events. Data analysis was completed using conventional content analysis strategies. An over-arching meta-theme *Self Management in a Social Environment* emerged. Every aspect of the process of self-management, as described in the four major themes, (1) Family Cohesion, (2) Social Stigma of Disease, (3) Social Expectations/ Perception of “Illness,” and (4) Disease Knowledge and

Understanding, was influenced by the social context. This study revealed several socio-cultural influences that impact diabetes self-management practices for the migrant Latino adult. The familist traditions, central to the Mexican culture had both positive and negative consequences on diabetes management. Social stigma, in relation to a diabetes diagnosis, is likely not exclusive to this population. However, the associated negative social expectations and perceptions might be unique. The discovery surrounding the lack of, and approach to, diabetes management education provided to individuals, families and community members may well be central to improving the health of this population.

## CHAPTER I: THE RESEARCH PROBLEM

### Statement of the Problem

The National Institutes of Health (NIH) (2000) define disparities in health as “differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the United States” (p. 4). These disparities include shorter life expectancy, higher incidence and prevalence of disease states such as diabetes and cardiovascular disease, and higher infant mortality and mental disorder rates. Many factors can contribute to health disparities such as reduced access to health care, increased risk of morbidity and mortality due to occupation or hazard exposure; increased risk due to underlying biological, socioeconomic, ethnic and familial factors; influences of cultural values and level of education (NIH, 2000). The Latino population is one group with known health disparities, especially in the area of diabetes. Extensive research in diabetes care has been conducted (e.g. American Diabetes Association, 1998; Brown, 1988, 1999; Brown, Garcia, Kouzekekanani, & Harris, 2002; Centers for Disease Control and Prevention (CDC), 1997, 1999, 2003; Diabetes Control and Complications Trial Research Group (DCCT), 1993, 1996; Poss, Jezewski, & Stuart, 2003; UK Prospective Diabetes Study Group, 1998a, 1998b; Wen, Parchman, & Shepherd, 2004; Wen, Shepherd, & Parchman, 2004); however, there is a significant gap in the research literature related to factors that influence the achievement of glycemic control and self-management practices of the Latino population, in general, and migrant workers specifically. The vast majority of research available has focused on diabetes management and self-management practices of

non-Hispanic white, middle class Americans and the strategies for improved health in this population. Based on well-documented disparities (CDC, 1999, 2003) in complications and health outcomes among Latino adults compared to Anglo-American adults, there is sufficient evidence to question whether traditional Anglo beliefs about self-management are successful or appropriate for the Latino population in general, and migrant workers specifically. Traditional Anglo-American models view self-management as an individual responsibility (Brown, 1999; Clement, 1995; Lewis, 2003; Orem, 2001). Whether this view is congruent with the collectivist cultural tradition held by many Latino adults is unclear. Equally unclear is the degree to which using traditional Anglo-American models of self-management, in teaching about managing type 2 diabetes, influences health outcomes for the migrant Latino.

Diabetes poses a significant public health challenge in the United States. It is estimated that 1.5 million new cases are diagnosed each year or 4,109 each day (CDC, 2005). Diabetes is a chronic disease, the prevalence of which has increased steadily over the past decade. Presently 14.6 million persons in the United States have been diagnosed with the disease while 6.2 million persons are estimated to have the disease but are undiagnosed (CDC, 2005). Diabetes is the sixth leading cause of death in the United States, primarily from diabetes related cardiovascular disease. Additionally, diabetes is the leading cause of non-traumatic amputations in the United States (82,000 each year or 225 each day), blindness among working-aged adults (22,000 each year or 60.2 each day), and end stage renal disease (44,400 each year or 122 each day; CDC, 2003).

The devastating cardiovascular, renal, retinal, and micro-vascular health problems associated with diabetes contribute to an impaired quality of life and substantial disability among people with diabetes (CDC, 2003). Diabetes is also a very costly disease, with an estimated \$132 billion attributed cost annually in 2002 (National Diabetes Information Clearinghouse [NDIC], 2005). Hospitalization for diabetes associated illnesses, rehabilitation, disability related loss of income and employment, and long-term kidney dialysis account for the largest portion of these costs (American Diabetes Association, 1998; Hodgson & Cohen, 1999; NDIC, 2005). This cost estimate is especially disturbing given the validated efficacy and economic benefits of secondary prevention such as controlling glucose, lipid, and blood pressure levels, and tertiary prevention such as screening for early diabetes complications followed by appropriate treatment and prevention strategies (DCCT, 1993; 1996). Poor glucose control leads to cardiovascular, renal, retinal, and micro-vascular complications. It is well established that motivated individuals with diabetes who understand their disease and how to manage it experience fewer complications (American Diabetes Association, 2003; DCCT, 1993; 1996; UK Prospective Diabetes Study Group, 1998a; 1998b). Therefore, understanding how to support and enhance self-management is critical for reducing disability and improving quality of life among those with diabetes. This critical need extends to understanding cultural and ethnic variations that might impact how diabetes is self-managed (DCCT, 1996; Clement, 1995; US Department of Health and Human Services, 2000; Leenerts & Magilvy, 2000).

Diabetes is one of the fastest growing disease classifications within the United States, especially among the Latino population (CDC, 2005). Nationally 2.5 million or 9.5% of all Latinos, 20 years of age or older, have diabetes. Latino individuals are 1.7 times as likely to have diabetes compared to non-Hispanic white individuals of similar age (CDC, 2005). These numbers are on a steady increase and only account for diagnosed cases of diabetes. Prevalence rates for the common complications of diabetes, obtained from the Centers for Disease Control and Prevention 2002 and 2005 data for the Latino population, clearly imply that developing strategies for preventing the complications from diabetes is a critical need. For example, 16.5 per 100 Latino adults with diabetes have visual impairments; 430.4 per 100,000 Latino adults with diabetes have end-stage renal disease; and 26.9 per 100 Latino adults age 35 years or older with diabetes have self reported cardiovascular disease (CDC, 2005). Comparable figures for non-Hispanic white adults are 19.5, 262.7, and 34.9 respectively. In addition, less than 60% of Latino adults with diabetes receive annual eye and foot exams, and participate in daily blood glucose monitoring (CDC, 2005).

Among Mexican-American adults, a subgroup of Latino adults, type 2 diabetes has reached epidemic proportions with concomitant devastating health complications, morbidity and mortality. Fortunately, many of these complications could be prevented through self-management techniques that promote tight glucose control. The costs, financial, physiologic and psychologic, associated with this disease and its complications are extreme. The need to explore culturally congruent, cost reducing and health promoting disease self-management strategies is imperative for this high risk population.



New insights gained from this exploration may provide a mechanism to improve health outcomes and decrease costs associated with this chronic disease and move away from the belief that “diagnosis of diabetes is a death sentence” in the Latino population (Hakes, Blanco, Foxcroft, Compean-Rincon, & Sanchez, 2003, p. 18).

#### Statement of Purpose

The purpose of this qualitative descriptive study, with an inductive content analysis approach utilizing grounded theory techniques was to explore the socio-cultural influences and processes associated with living with type 2 diabetes among migrant Latino adults.

#### Research Questions

This study is designed to answer the following research questions:

- 1) What are the socio-cultural influences that guide self-management practices among migrant Latino adults with type 2 diabetes?
- 2) How does the social context, including the ways in which family is viewed, influence the way in which migrant Latino adults conceptualize and enact diabetes self-management?
- 3) How do perception and experiences of migrant status and socio-economic status influence the way migrant Latino adults self-manage type 2 diabetes?

#### Significance of the Study to Nursing

This study describes the socio-cultural influences on the process of diabetes self-management for the migrant Latino with diabetes. This will set the groundwork for my program of research; to develop new knowledge; and ultimately a theory grounded in the

evidence in the area of type 2 diabetes care in the Latino population where a significant knowledge gap exists. Improved levels of understanding gained from this research will allow for the development of interventions and educational programs to improve the health outcomes and decrease health disparities of the rural migrant Latino population utilizing culturally appropriate methods.

With this new understanding, interventions could be developed and tested to ascertain their effectiveness and impact on diabetes management and control. Further studies of the applicability of intervention strategies could then be tested for other disease classifications.

The paucity of research focused specifically on the migrant farm worker population leaves much to speculation and trial and error. Much more information and understanding is needed to better meet the health needs of this population. As new understanding comes forward, nurses will have the ability to expand the knowledge base regarding this dynamic cultural group.

#### Implications for Clinical Practice

Healthy People 2010 identifies the goal for diabetes as: “Through prevention programs, reduce the disease and economic burden of diabetes, and improve quality of life for all persons who have or are at risk for diabetes” (US Department of Health and Human Services, 2000, p.5-2). Multiple objectives are listed, many of which relate to issues of self-care behaviors. Included are education, annual dental and eye exams, and self blood glucose monitoring. Currently, the proportion of Latino adults with diabetes who participate in annual eye exams is 38%, annual dental exams 32%, daily self blood

glucose monitoring 36%. These percentages are far below goal targets outlined in Healthy People 2010 (US Department of Health and Human Services, 2000). These statistics illustrate the need for improved healthcare interventions for this high-risk population.

Unfortunately, many healthcare providers view poor diabetes control in this population as non-compliance to the prescribed regime and fail to explore why diabetes management goals are not being met. This failure is viewed as the individual responsibility of the patient, with no recognition that the providers may be approaching education and care from a culturally incongruent framework. The unanswered question is “what are we as healthcare providers failing to provide for the patient that would improve his/her health and promote disease management?”

Clinical practice and health promotion for this population of migrant farm workers could be improved through the identification and support of social capital resources present in the environment as identified by the population itself. Describing what members of this population need and value in relation to disease management could be the springboard to improved health outcomes. Additionally, developing strategies that are culturally congruent, rather than dictating care based on traditional Anglo-American assumptions and beliefs, is imperative to improve outcomes in diabetes management for the migrant Latino adult.

### Conceptual Framework

In this chapter I will present four constructs which outline the conceptual foundation of this research study: (1) The fundamentals of Symbolic Interactionism

Theory, (2) the determinants of vulnerability, (3) Aday's (2001) Framework for Studying Vulnerable Populations, and (4) the impact rurality has on vulnerability. Lastly, I will describe the guiding research framework, a merging of these concepts and theory, for this study.

### Symbolic Interactionism Theory

Symbolic Interactionism stems from the work of George Herbert Mead, a pragmatist philosopher and social psychologist (Crotty, 1998). Herbert Blumer, one of Mead's students, compiled over 40 years of papers and class notes to present a comprehensive discussion of Mead's theory for which he coined the term "Symbolic Interactionism."

The focus of this theory is on the subjective aspects of social life, rather than on the objective, macro-structural aspects of social systems (Blumer, 1969; Jeon, 2004; Benzies & Allen, 2001). For the interactionist, society is comprised of organized and patterned interactions among individuals. Symbolic interactionism is based on three tenets:

- (1) "Human beings act toward things on the basis of the meanings that the things have for them" (Blumer, 1969, p. 2). These "things" include everything one may note in his/her environment (for example, physical objects, other individuals or groups of individuals, institutions, guiding ideals, activities of others, and daily activities). With symbolic interactionism the meanings are central, rather than disappearing into

initiating or causative factors that became the focus of modern psychological and social science (Blumer).

- (2) “The meaning of such things is derived from, or arises out of, the social interaction that one has with one’s fellows” (Blumer, 1969, p.2). Meaning is a social product created and formed in and through the defining activities of people as they interact. These interactions define the “thing” for the person (Blumer; Benzies & Allen, 2001).
- (3) “Meanings are handled in and modified through an interpretive process used by the person in dealing with the things he encounters” (Blumer, 1969, p.2). The use of meaning involves an interpretive process that has two distinct steps. The first is an internalized social process in which the individual is interacting with him/herself; the individual engaging in a process of communication with him/her self (Blumer; Benzies & Allen, 2001; Jeon, 2004). The second step involves the individual interpreting meaning through a process of selecting, checking, and suspending meaning; transforming meaning in light of the current situation and the direction of his action (Blumer; Benzies & Allen). As such, interpretation is an active process of meaning development that then guides action; not an automatic application of previously established meaning.

The philosophic underpinnings of symbolic interactionism lie in the “root images” of “human groups or societies, social interaction, objects, the human being as an actor,

human action, and the interconnection of the lines of action” (Blumer, 1969, p. 6). I will briefly synthesize these philosophic views in the following paragraphs.

### *Human Groups or Societies*

Individuals may act singly or collectively. Actions belong to the individual and are carried out always with regard to the current situation. “Fundamentally human groups exist in action and must be seen in terms of action” (Blumer, 1969, p. 6). As I will explicate in Chapter II, it is expected that family interactions will be prominent in the migrant Latino population’s interpretations, meanings, and actions.

### *Nature of Social Interaction*

Activities of individuals result from the individuals interacting with one another. Action occurs in response to one another or in relation to one another (Blumer, 1969; Jeon, 2004). This social interaction process forms human conduct rather than serving as a means or setting for the expression and release of human conduct as purported by many sociological and psychological schemes such as Social Action Theory (Ewart, 1991). Interaction that occurs in direct response to the action of others without interpretation by the individual (reflex response) is not symbolic interaction (Blumer, 1969; Crotty, 1998). The process of interpretation (the individual with himself and in response to his interactions with others) is central to symbolic interactionism.

### *Nature of Objects*

The ‘worlds’ that exist for human beings and their groups are composed of ‘objects’ (physical, social, and abstract) that are the product of symbolic interaction (Blumer, 1969; Jeon, 2004; Benzies & Allen, 2001). These objects include anything that

is indicated or referred to, including moral principles and philosophic orientation. The meanings of these objects arise out of the way they are defined by others with whom we interact. Out of this interaction, common objects and their meanings emerge; and the environment consists of only those objects that the individuals know and recognize; those objects that have meaning. These meanings are formed, learned and transmitted through social interaction with self and others.

### *Human Beings as an Acting Organism*

Individuals act toward themselves and guide their own actions toward others on the basis of the object (with meaning) that they are to themselves. This “self” emerges out of the social interaction process with others; other people define an individual to them self; a process of seeing oneself from the outside (Blumer, 1969; Benzies & Allen, 2001; Jeon, 2004). Within this concept of “self,” individuals are able to interact with themselves; a process of self indication in which meaning is given to objects noted in the environment and then used to direct action.

### *Nature of Human Action/Inter-linkage of Action*

Action consists of taking account of various objects that are noted and creating action on the basis of interpretation. Social behavior consists of individuals fitting their actions together. Collective action is an outcome of the process of interpretive interaction (Blumer, 1969; Jeon, 2004). “The preponderant portion of social action, in human society, exists in the form of recurrent patterns of joint action” (Blumer, 1969, p.17). Individuals act toward one another based on advance understanding of how to act and how others will act. They share common pre-established meanings of what is expected

and guide their own behavior and actions by these meanings. It is the social process of interaction in groups that creates and upholds the rules rather than the rules creating and upholding groups (Blumer, 1969).

### Summary

The foundation of symbolic interactionism theory is that all situations must be viewed from the individual's world. The meanings of objects and actions taken must be understood from the individual's interpretation. Individuals act and interact on the basis of symbols, which have meaning and value to the individual. Individuals are pragmatic actors that continually adjust their behavior to the actions of others through interpretation. This interpretive process in the construction of meaning is central to understanding social experiences. While the interpretive process is very individualistic, the interpretation and resulting actions are influenced by the interactions, and learned meanings derived from those interactions, with others. Culture and social structure are conceptual components within this activity and are dependent on the individual's egocentric or allocentric orientation, which is a focus on self or others.

### Determinants of Vulnerability

Extensive research focused on vulnerability has been conducted resulting in several theories or models for assessing an individual's or population's vulnerability risk (e.g., Flaskerud & Winslow, 1998; Aday, 2001; Rogers, 1997). Although these models vary slightly in their approach to the concept of vulnerability, common characteristics have been universally identified. Population subgroups have been identified who are more vulnerable to poor health outcomes than others (Rogers). These subgroups include:



(1) the very young and the very old, (2) racial and ethnic groups, (3) individuals with little or no social support, (4) those with lower levels of education, and (5) low wage earners.

Vulnerability must, however, also be viewed from the individual's perspective. The perception, experience, and impact of socioeconomic and environmental factors on the individual may be very different than others in the same population. *Degree of vulnerability* is greatly influenced by individual perception and experience (Rogers, 1997). The more control over any given situation that an individual feels and experiences, the less vulnerable he or she perceives him/herself to be. In addition, "outsiders" looking in may perceive the impact very differently than the individual on the "inside." Vulnerability is not limited to one or more specific population; rather, every individual and population may be vulnerable at one point or another in the course of time.

As described by Flaskerud and Winslow (1998), vulnerable populations are social groups with an increased risk of adverse health outcomes. Aday (2001) defines vulnerability as being susceptible to harm or neglect and as such, all members of communities are potentially vulnerable. Factors that increase one's risk for poor health outcomes have been categorized as socio-economic and environmental resources.

#### Aday's Framework for Studying Vulnerable Populations

Aday's (2001) framework for studying vulnerable populations is rooted in the discipline of sociology and a community health perspective: "both the origins and remedies of vulnerability are rooted in the bounds of human communities" (Aday, 2001, p.1). She defines vulnerability as being susceptible to harm or neglect and as such all

members of communities are potentially vulnerable (Aday). This is evidenced by an increased risk of morbidity, premature mortality, and diminished quality of life.

Vulnerability must be viewed from both the individual and community level and the relationships therein, to fully understand a population's risk of poor physical, psychological, or social health.

The Aday (2001) vulnerability framework is organized around three concepts: health status, relative risk, and resource availability. These concepts provide the substantive focus areas of her framework.

#### *Health Status*

Health as defined by the World Health Organization (WHO) is a “state of complete physical, mental, and social well-being” (WHO, 1948, as cited in Aday, 2001). Health is measured along a continuum from “good health” to “death,” and health needs are those departures from full physical, mental, and social health experienced over one's lifetime (Aday). The magnitude and seriousness of these needs are determined by both the individual's perceptions and by observations of others (i.e., clinicians, diagnostic testing, and community assessments) (Aday).

#### *Relative Risk*

The risk for poor health is measured by not only an epidemiologic focus but also by community and individual factors that contribute to an increased probability of poor health outcomes (Aday, 2001). The level of risk fluctuates over time and environment, as well as by group or population. Numerous factors can influence an individual's overall risk such as age, gender, and ethnicity.

### *Resource Availability*

In order to understand the factors that increase the risk of poor health, we must first look at the availability and distribution of resources within the community (Aday, 2001). Individual risk varies as a function of the resources, material and non-material, that are available to the individual with health needs. These resources are further divided into three categories: social status, human capital, and social capital (Aday). As each of these categories of resources fluctuates over time, so does one's vulnerability to poor health.

Social status is associated with the positions that individuals occupy in society as a function of age, sex, or race and ethnicity. These positions are accompanied by socially defined opportunities and rewards (Aday, 2001). Socially defined roles are central to one's social status. As an example, socially defined roles characteristic of different life stages can differentially influence the risk for poor health such as: the dependency of infants and the elderly on others for assistance; risk-taking behaviors of adolescents; hazards exposure for the working adult. Individuals with a combination of socially defined status roles (e.g., elder Latino female, adult white male) are likely to have differing opportunities for health risk reduction.

Social capital lies in the quality and quantity of interpersonal ties among individuals. These social networks provide "social support and the associated feelings of belonging, psychological well being, and self esteem" (Aday, 2001, p.6). Social support networks provide an important resource for physical and psycho-social well being. Key components of social support are family structure, marital status, and the social networks

of family and friends (social connectedness). Social support networks provide resources to individuals coping with life events and the impact these events can have on overall health status. These social support networks are central in the Latino allocentric culture as will be further explicated in Chapter II.

Human capital refers to “investments in people’s skills and capabilities that enable them to act in new ways or enhance their contributions to society” (Aday, 2001, p.6). Components of human capital are education, employment, income, and housing. An individual’s level of employment and associated income, educational level, and housing status correlate with vulnerability. These components are often directly related to one another. For example, an individual who has an 8<sup>th</sup> grade education will most likely be employed in a minimum wage job, and therefore has little or no income for meeting basic needs. As basic needs go unmet, health risks increase. It is important to note that social capital can enhance the generation of human capital through family and community support, a foundational conceptual component of this research project.

The philosophic underpinnings of the Framework for Studying Vulnerable Populations are the principles of ethical norms and values of personal autonomy, interdependence, and associated individual rights (Aday, 2001). Good health is viewed primarily as a function of personal lifestyle choices and community norms (reciprocity, trust, and social obligation). Acknowledgement of the webs of interdependence and mutual support and caring is essential for minimizing risks for poor physical, psychological, or social health. “Poor health results because communities fail to invest in and assume responsibility for the collective well being of their members” (Aday, Begley,

Lairson, & Slater, 1998; Evans, Barer, & Marmor, 1994). Individual health does not emerge in and of itself, but rather is a result of the resources (both social and human capital) experienced and perceived available.

#### Rurality: Relationship and Impact on Vulnerability

The factors that influence one's vulnerability, as described above, are magnified when in the rural context. Rurality adds issues of isolation both by physical location and by separation from others and the geographic traversability to resources that are available. Sources of transportation to available resources (for basic needs as well as healthcare) may be limited or nonexistent. Employment opportunities available in the rural environment are often limited and pose additional health risks due to the nature of the work. Rural locales may also present limited housing and daily resource needs availability. Each of these factors, common to rural locales, further increases one's risk of poor health (Glasgow, Morton, & Johnson, 2004; Loue & Quill, 2001).

Geographic isolation is common for populations living in rural locales. Often separated not only by sheer distance, but also by land barriers such as mountains, rivers, and lakes that impede travel, rural residents become physically separated from needed resources. The impact of this kind of isolation can be further amplified by separation from social support networks resulting in further limitation of human capital resources. Separation from family support networks is common for the migrant Latino farm worker. Many of these individuals must leave family members in Mexico when migrating to the United States for work. Individuals, who have been able to bring family members with

them, find themselves migrating state to state, following the crops, requiring separation from family for extended periods of time due to logistical and financial constraints.

Rural communities, due to economics and difficulty attracting providers, are faced with extremely limited sources for healthcare, and rarely have access to specialty services within close proximity (Glasgow, Morton, & Johnson, 2004). Specialty services require added financial resources to pay for needed services and for transportation itself. Rural areas do not offer the convenience of public transportation at little or no cost, but rather require long transport times if working vehicles are accessible and available. The economic burden to access healthcare services can be an overwhelming deterrent. Additionally, the time spent away from home and work further impacts the financial burden realized by the individual and community. Each of these factors impact healthcare resources available to the migrant Latino farm worker.

#### Philosophic Compatibility of Symbolic Interactionism and Aday's Framework for Studying Vulnerable Populations

Symbolic interactionism theory (Bulmer, 1969) and Aday's (2001) framework for studying vulnerable populations both purport that individuals do not proceed through life in isolation, but rather are in constant interaction and influenced by their environment. Symbolic interactionism theory focuses on the interactions one has with others that influence action, through interpretation, and is consistent with Aday's philosophy that one's vulnerability risk is influenced by the social capital (social connectedness) one has with his/her community of family and friends. Symbolic

interactionism and Aday's vulnerability framework support the premise that health needs are influenced by the interaction and relationships one has with one's community. The social networks described by Aday, as providing one with a sense of belonging and well being, are tied to the meanings individuals have formed through social interaction.

Additionally, both symbolic interactionism and Aday's (2001) framework are based on a social community foundation, consistent with their emergence from the discipline of sociology. Individuals are not in isolation but rather a creation of their social environments. This philosophic worldview is also compatible with my personal constructionism philosophy as viewed through a pragmatic lens (Crotty, 2003). In the following section, I will further explicate the compatibility of this worldview in relation to symbolic interactionism and the Latino migrant population.

#### Guiding Research Framework

Symbolic Interactionism is rooted in three basic premises: (1) people act toward things on the basis of the meaning things have for them, (2) the meanings derive from or arise out of the social interaction one has with others and (3) meaning arises in the process of interaction between two people (Blumer, 1969; Crotty, 1998). The person, in interaction with others, is at the center of the theory. In order to understand action, one must explore, describe, and clarify the defining process (Blumer). This philosophic worldview provides the framework for exploring why things are the way they are in our social world and why people act in the ways that they do. This framework, grounded in the context of social capital/social connectedness as described by Aday (2001), will guide my research exploring the social process of living with diabetes for the migrant Latino. It

is the social interaction and action (and alterations thereof due to social network disruption as a result of migration and separation from family networks), guided by the cultural meanings held by this population, that will provide insight into the diabetes management practices undertaken by this at-risk population.

In conceptualizing these questions, the merging of symbolic interactionism theory and Aday's social capital concept provide a solid, cohesive and relevant foundation for this research exploring the socio-cultural influences and process of living with diabetes for the migrant Latino adult in rural Idaho.



## CHAPTER II: REVIEW OF LITERATURE

### Vulnerability Among the Latino Migrant Population with Diabetes

The term “Hispanic,” for which no precise definition of group membership exists (and Hispanic/Latino individuals do not agree among themselves on an appropriate group label) was created by federal statisticians. The labels Hispanic and Latino obscure variations in the family characteristics of Latino groups whose differences are often greater than the overall difference between Latino and non-Latino individuals (Baca-Zinn & Wells, 2000). Individuals from several ethnic backgrounds, including Cuban, Mexican and Puerto Rican, are often grouped together under these terms. Each of these ethnic groups has unique views and approaches to health and illness and therefore must be explored separately (Baca-Zinn & Wells; Luna et al., 1996; Rodriguez-Reimann, Nicassio, Reimann, Gallegos, & Olmedo 2004).

Latino families are not merely an expression of ethnic differences but, like all families, are products of social forces. “Family diversity is an outgrowth of distinctive patterns in the way families and their members are embedded in environments with varying opportunities, resources, and rewards. Economic conditions and social inequalities associated with race, ethnicity, class, and gender place families in different ‘social locations.’ These differences are the key to understanding family variation” (Baca-Zinn & Wells, 2000, p. 254). It is anticipated that these variations influence the process of disease management for the migrant Latino with type 2 diabetes.

Within the diverse Latino population in the United States are those individuals who are long term residents of the United States and are well acculturated (a process in

which members of one cultural group adopt the beliefs and behaviors of another group evidenced by changes in language preference, adoption of common attitudes and values, membership in common social groups and institutions, and loss of separate political or ethnic identification); individuals who have recently immigrated to the United States; and those who are migrant farm workers (individuals who relocate in order to work in agriculture and are unable to return to their permanent residence at the end of the work day) (Hakes et al., 2003). These characteristics have differential effects on cultural beliefs and practices, health outcomes and self-management practices.

Extensive research has been completed related to vulnerability and the identifying factors that produce the greatest risk for poor health outcomes which include ethnic/racial, economic, educational and health care related factors (Aday, 2001; Flaskerud & Winslow, 1998; Rogers, 1997). Latino migrant workers meet all of these criteria. First, ethnic/racial factors, which include language barriers, apply because cultural norms of this group may not be well understood by health care providers and may clash with typical Anglo approaches to health. This group may experience a lack of support or feelings of isolation when migrating from region to region in search of work. Economic factors apply because they frequently have below minimum wage field work that does not provide for health coverage, experience increased financial burden related to migration from state to state, and from work area to work area, with periods of unemployment (US Census Bureau, 2003). Educational factors apply because few have a high school education (US Census Bureau). In addition to lack of education, they are confronted by a new society and legal system. Health care related factors apply because

of inconsistency of health care caused by frequent moving. Many of these individuals move from provider to provider and often run out of medications in the process.

The consequences for diabetes control are monumental. Extended periods with elevated blood glucose levels increase the likelihood of retinopathy, cardiovascular disease and kidney failure (Diabetes Control and Complications Trial Research Group [DCCT], 1993, 1996). If and when these individuals seek medical assistance, often no records are available to the provider who must then start over (Hakes et al., 2003). This often leads to new medications and dosages that may have already proven ineffective, in turn extending the time frame of poor glucose control (Clement, 1995). The expense of repetitive laboratory work, medication changes, and office visits increases the financial burden for this population, leading to further delays in treatment and follow up. In addition, routine screening and evaluation is limited or omitted due to lack of continuity of care. Typically, only the acute management issues are addressed, leaving recommended annual exams (dental, dilated eye, urine protein and creatinine) incomplete, further leading to increased risk of complications from non-intervention (Clement, 1995; Hakes et al., 2003). Additionally, these individuals are at increased risk for work injuries due to the nature of fieldwork (Clement, 1995; Hakes et al., 2003; National Council of Farmworker Health (NCFH), 2005). When the risk of “unidentified” injury secondary to peripheral neuropathy (resulting from prolonged blood glucose elevation) is added, these individuals are likely to become disabled and unfit to continue working. Unfortunately, these individuals do frequently continue to work, due to financial needs, often resulting in further injury that leads to lower extremity amputation

(Centers for Disease Control and Prevention [CDC] 1997, 2003; American Diabetes Association, 1998; Hodgson & Cohen, 1999; DCCT, 1993, 1996; Clement, 1995).

Diabetes significantly increases the risk of serious debilitating and life threatening complications if not aggressively treated and tightly controlled. Many devastating disabilities can be minimized if the client has the knowledge and ability to follow through on self-management. All of these issues point toward the need for strong self-care management skills because the Latino migrant adults are the major directors of their own care (in relation to access and migrant status.)

As a migrant population, issues of border and border crossing may also influence the health disparities and/or vulnerability of this population. Crossing borders, including the U.S.-Mexico border and state borders within the United States, influences access to health care. Of particular concern with this migrant population is the issue of legal documentation to enter the United States. Although the majority of this population has entered the United States legally, some lack this legal documentation (NCFH, 2005). As a result, fear of exposure and identification as undocumented, resulting in deportation, may hinder efforts to seek out healthcare providers. Knowledge of where and from whom to access care becomes an ongoing challenge along the migration path. In addition, members of this population may avail themselves of healthcare on both sides of the border, United States and Mexico, further fragmenting care. Health care availability, funding, and access also vary across U.S. state borders as each state's regulations and requirements for low income assistance vary. Additionally, these assistance programs are not transferable to neighboring states, further increasing the vulnerability of this migrant

population. Border crossing can also result in separation from family and social networks; decreasing, abolishing, or at the very least disrupting resources of social support for health maintenance. Each of these “border” factors further heightens the risks for poor health. The issues that increase vulnerability of this population are further accentuated by and not separable from border health issues in general.

### Self-Management

There is an extensive body of literature related to self-care/self-management and health management practices: a Medline database search (1996-2007) resulted in 5432 citations. However, only 133 of these related to Mexican-American or Latino populations. None were specific to migrant workers. Only one article, focusing on chronic pain management in Latino adults, was found that recommended family involvement and recognition and acceptance (by healthcare providers) of treatment and complimentary health practices. A majority of research in this area has investigated compliance with chronic disease management regimens but the unique problems that contribute to poor glycemic control have not been studied.

Self-management, also referred to as self-care in the literature, has been defined in a number of ways depending on the disciplinary focus (i.e. sociological, physiological, ecological, medical, or related to nursing or health promotion). Because of this diverse array of historic roots for the concept self-management, there is no universally agreed upon definition. Despite this, the concept of self-management consistently reflects individual behavior that is voluntary, universal, and self-limited (Lewis, 2003; Leenerts & Magilvy, 2000; Peterson & Vinicor, 1998).

Orem's theory of self-care has been used often in self-care research. Orem defined self-care as "the practice of activities that individuals initiate and perform on their own behalf in maintaining life, health, and well-being" (Orem, 2001). Orem also states that knowledge about cultural group norms that influence self-care is best obtained from the client's perspective.

Self-management has also been described as "caring about oneself," "not harming oneself," and "having relationships that motivated self-care practices" (Leenerts & Magilvy, 2000). In their research with white, non-Hispanic, English speaking, HIV positive women, Leenerts and Magilvy identified four self-care categories: focusing self, fitting resources, feeling emotions, and finding meanings. According to Maddox (1999), "self-care activities are actions directed toward self or environment to regulate one's functioning in the interest of one's life, integrated functioning, and well-being" (p. 31). This definition is based on research with elderly non-Hispanic white females. The utility of these self-care models with a culturally diverse population appears not to have been researched.

I have chosen the term "self-management" for this research study because it includes self-care behaviors (e.g., exercise, dietary habits, blood glucose monitoring, and medications) and the component of behavior change or action based on the results of those behaviors. For example, the self-care behavior of checking a blood glucose level is then used in "self-management" to direct further self-care behaviors based on the results (e.g., blood glucose is 250 mg/dl so individual responds by either increasing exercise,

decreasing caloric intake at next meal, or increasing medication dose to promote return to normoglycemia.)

A large knowledge gap related to self-management in the Latino population exists. This group has a high rate of diabetes complications (CDC, 1997, 1999, 2003) despite interventions extensively documented in the Anglo population to decrease complication rates. Perhaps the problem relates to a mismatch between the assumptions of self-management among the Latino migrant population (familism worldview) compared to Anglo American individuals (individualistic worldview). Culturally influenced self-management beliefs and practices must be explored and culturally congruent nursing interventions developed. Research is needed to fill this important knowledge gap.

### Mexican Cultural Traditions

Cultural traditions and norms, present in all populations, influence disease management practices (Purnell & Paulanka, 2003). Accordingly, the following discussion will provide an overview of the cultural traditions known to be present within the Mexican population.

The term “Familism” was first introduced in the 1940’s to describe the commitment of family members to family and family relationships (Heller, 1970). Familism was defined by Burgess and Locke (1945) in terms of family members focusing activities on the achievements of family rather than individuals and identifying the social environment as “insiders” (family and extended family) and “outsiders” (anyone outside the family structure). In addition, family resources are used for the good of the whole and

unconditional support of other family members. Arce (1978) further delineated three types of familism (1) demographic (emphasizing family intactness and size), (2) structural (emphasizing the attitudes of the importance of family), and (3) behavioral (emphasizing ongoing contact with family and the exchange of mutual aid).

Culture is the driving force behind familism. Family structure and attitudes toward family are rooted in cultural traditions and are passed inter-generationally (Arce, 1978; Weiler & Crist, 2007). Although research on familism has been conducted among Anglos, Canadians, Greeks, Portuguese, Indians, and Arabs, it has come to be viewed as a defining characteristic of Mexican families (Bardis, 1959; Blair, 1968; Aldrich, Lipman & Goldman, 1973; Kassess, 1976; Luna et al., 1996; Roa & Roa, 1979; Purnell & Paulanka, 2003) and their attitudes toward caring for their family members (Crist, 2002). Some researchers believe familism is the most important value embedded in the Latino culture (Arce (1978); Romero, Robinson, Haydel, Mendoza, & Killen, 2004; Weiler & Crist, 2007).

Mexican familism includes expression of family solidarity, ethno-cultural determinants of informal care giving, distrust of culturally alien institutions, and a desire to care for individual members within the family context regardless of personal cost or consequences (John, Resendiz & De Vargas, 1997; Romero, Robinson, Haydel, Mendoza, & Killen, 2004). The Mexican culture is characterized by a strong value attached to family. Multigenerational households and active extended family networks provide support to family members. This is accompanied by cultural beliefs, attitudes, and values that place the needs of the family above the needs of the individual; an



orientation to fulfill the needs of the family instead of the needs of the individual (John et al., 1997). This family oriented worldview, and the impact poor diabetes control for the individual can have on the health and well-being of the entire family, provide a compelling rationale for proposing that the focus for diabetes control shifts from an individual responsibility to that of a family responsibility.

Most Mexicans are socialized to believe that the needs and welfare of the family as a whole (or other individual family member), particularly the very young or very old, should take precedence over one's own needs. Thus children and older adults alike are often reminded that during good times or bad, *la familia* comes first (John et al., 1997, p. 146). These values and beliefs translate into normative expectations of familial responsibility and duty among Mexicans; a need for loyalty to the family institution (Crist, Velazquez, Durnan, & Figueroa, 2006; Kao & Travis, 2005). The family is the dominant source of advice and help in all generations. For the migrant Latino worker, the family structure may be disrupted. Often workers must live apart from their families; they travel, work, and live in groups of single men, often under the supervision and control of a crew leader. Other workers travel with some or all of their family members. Migrant Latino households may include families with children, single men, and older men and women (NCFH, 2005).

Community is viewed as a family-based personal network made up of people living within a limited geographical area in which face-to-face interaction occurs frequently. A strong commitment to family is present. Regardless of acculturation levels, Latino individuals perceive a high level of family support and desire geographic

closeness to their families (Luna et al., 1996). In addition to blood relatives, Latino individuals include *compadres* and *comadres* (godparents) as well as other community members as part of “family.” For the migrant Latino, who is separated from the nuclear family, the role that “community family members” assume in the process of diabetes management is unknown. Exploration of this topic is likely to provide significant insight into diabetes self-management practices in this population.

Women in Latino families tend to be relied upon for health matters. It is also noted that Latino individuals rely on interactions with same-gender family members regarding financial issues and personal problems rather than those with the opposite gender. Feelings of solidarity are greater between same-gender family members in comparison to those that are present with opposite-gender members. Multigenerational families are common and appreciation of this fact is important in understanding Latino family life (Luna et al., 1996). “Men have power and authority relative to outside institutions and women are responsible for the daily affairs of the family” (Luna et al., p. 55). Based on these cultural characteristics, it is anticipated that the process of diabetes management will vary based on gender and its associated cultural characteristics.

Longitudinal studies exploring Anglo families living with renal disease suggest that family beliefs and structures have a significant effect on disease management and patient survival (Reiss, Gonzalez, & Kramer, 1986). Linkages between characteristics of the family and changes in disease management over time suggest family context merits attention in long-term diabetes management (Chesla et al., 2003).

### Family and Chronic Illness

A large body of literature addressing family context in chronic illness and the impact this has on self-management is available (e.g., Fisher et al., 1998; Chesla, et al., 2004; Chesla & Chun, 2005; Fisher et al., 2000; Armour, Norris, Zhang, & Fisher, 2005). The majority of this literature, however, focuses on families with children and adolescents with type 1 diabetes or other chronic diseases associated with children. These studies have consistently shown that family involvement has a positive impact on disease management, especially in cohesive families with high conflict resolution skills. The parent-child interaction and influence on self-management differs significantly from those of adult-adult as is seen in type 2 diabetes, and this leaves open the question whether these patterns would remain applicable and if so under what circumstances. Also of interest, these research studies limit “family” to those living within the same household as the individual with diabetes. This is inconsistent with the definition of “family” held by many Latino individuals; and the influence and impact on disease management of extended family networks has not been studied. In addition, the vast majority of these research studies have been conducted with only Euro-American participants, with only four out of 25 articles reviewed including Latino participants in the study sample.

Fisher et al. (2000) explored the relationship between the characteristics of families involved in diabetes management and the self-care practices of Hispanic and European-American adults. They concluded that characteristics of the family setting are significantly linked to patient self-care behaviors but that links differ by ethnicity. For the Hispanic population, gender and family structure/organization were influential on disease

management in that organized/cohesive family structures were associated with good diet and exercise; and family gender-role traditionalism was related to high quality of life. Of interest in this study are the definition and the evaluation approach for family structure/organization and family world view. The researchers' definitions limited "family" to spouse/partner and offspring of the patient with extended family members included only if they were residing in the same household as the patient (Fisher et al.). Family structure/organization was based solely on "family sex role traditionalism (support for traditional gender roles within the family); and family world view was assessed using a family coherence scale to assess the family's belief that the world is "comprehensible, meaningful, and manageable" (Fisher et al., p. 269). This approach to family structure and worldview is quite limited and it is unclear if this scale is appropriate in the Latino cultural milieu.

In their study exploring the differences in personal models among Latino and European American adults, Chesla, Skaff, Bartz, Mullan, and Fisher (2000) noted that European American adults more frequently reported that the effects of diabetes on their daily lives were related to self-management scheduling requirements (diet, exercise, medication regimes, and blood glucose monitoring), whereas the Latino participants highlighted social rather than scheduling problems with the disease. These findings illustrate the high importance Latino populations place on family and social contexts and expectations in their lives.

In a meta-synthesis by Fisher and Weihs (2000) reviewing family relationships and outcomes in chronic disease, the authors report that "new studies are needed to refine

and enhance the design of family based intervention protocols” (p. 564). The authors suggest that a broader social and ecologic perspective to the management of chronic disease is warranted.

### Conducting Research with Rural Populations

Rural locales add issues of access, distance, limitation of available resources and finances, and isolation to the risks of poor health outcomes already present in vulnerable populations. Each of these factors impact availability and willingness of rural populations to participate in research endeavors. The researcher must consider each of these factors when approaching rural communities, remaining ever cognizant of the impact such research will have on the individuals and the community as a whole. For example, if additional resources are brought to the rural community, mechanisms for sustainability of those resources after the completion of the research project must be addressed. Failure to do so can result in further decline in the health of the community and a sense of “being used.” Mistrust will be the likely outcome, hindering further access to the population.

Acknowledging the complexities of conducting research with rural communities, researchers are well advised to enlist the assistance of community members or culture brokers/advisors in their endeavors. These individuals provide insight and advice to the researcher entering a community of which they are not members. They assist the researcher in developing and sustaining good relationships; avoiding social errors; and understanding cultural behaviors, meanings, and norms (Crist & Escandon-Dominguez, 2003; Tripp-Reimer, Brink, & Pinkham, 1999). Additionally, the support of stakeholder

agencies and organizations within the community can enhance the success of research projects and the sustainability of resources once the research is completed.

To foster a relationship of trust and authentic interest in this community, active involvement in community events, outside the auspices of research activities, is recommended. This furthers the researcher's presence and recognition in the community, consistent with effective and successful community based research endeavors (Crist & Escandon-Dominguez, 2003; Tripp-Reimer, Brink, & Pinkham, 1999). Additionally, the researcher must adhere to strict procedures to ensure research participant confidentiality from social, ethical, and legal standpoints. Conducting research in rural communities often presents dense interrelationships that threaten privacy.

Upon completion of the research project, it is essential for the researcher to return to the community and disseminate research findings. In this process the researcher is able to elicit the community members' priorities for further research endeavors. This will further enhance the ability to maintain and sustain these very important community partnerships.

### Summary

A paucity of available research, and the strong cultural ties to familism in the face of the sometimes disrupted family structures characteristic of migrant status, leaves much to conjecture regarding diabetes management practices in this population. The epidemic rate of diabetes in the Latino population, coupled with the vulnerabilities that arise as a result of migrant status, highlight the need for research on the social processes of diabetes self-management within the families/households of Latino migrant workers.

Understanding gained from research can guide development of interventions and education programs, utilizing culturally appropriate methods, to enhance the health of this population.

## CHAPTER III: METHODOLOGY

### Study Design

Qualitative research methodology attempts to increase our understanding of why things are the way they are in our social world and why people act in the ways that they do. This provides the framework for answering questions focusing on how and why specific actions are taken and the cultural context in which these behaviors occur. Symbolic Interactionism provides the philosophical foundation for this qualitative descriptive research with an inductive conventional content analysis approach, and guides the research, interview questions, data collection and analysis.

The purpose of this study was to explore the socio-cultural influences and processes associated with living with type 2 diabetes among migrant Latino adults. Using a qualitative descriptive design and conventional inductive content analysis utilizing a grounded theory approach, this study was designed to answer the following research questions:

- 1) What are the socio-cultural influences that guide self-management practices among migrant Latino adults with type 2 diabetes?
- 2) How does the social context, including the ways in which family is viewed, influence the way in which migrant Latino adults conceptualize and enact diabetes self-management?
- 3) How does perception and experience of migrant status and socio-economic status influence the way migrant Latino adults' self-manage type 2 diabetes?



### Qualitative Descriptive Research

Qualitative descriptive research with grounded theory techniques as described by Sandelowski (2000) “provides a comprehensive summary of events in the everyday terms of those events” (p. 334). Qualitative descriptive research draws from the basic tenets of naturalistic inquiry as described by Lincoln and Guba (1985) and Willems (1967). Such research involves the description of a health or illness phenomenon from the perspective of those individuals with the phenomenon (Giorgi, 1992; Thorne, Kirkham and MacDonald-Emes, 1997). These descriptions are considered a central form of nursing science as they reflect aggregate knowledge without losing sight of the individual. These descriptions provide an understanding of how individuals experience their health and illness, what nursing can do to make a difference, and development of new nursing knowledge (Thorne, Kirkham and MacDonald-Emes).

Qualitative descriptive studies often include exploratory techniques of other qualitative research methods, for example, grounded theory, yet do not have formal expected end results, for example, theory development, as would be present in a pure grounded theory approach (Sandelowski, 2000). Qualitative descriptive research does not require the researcher to move as far into or away from the data (abstraction) but in and of itself does produce a valued end product (Giorgi, 1992; Thorne, Kirkham and MacDonald-Emes, 1997). Unlike the more traditional qualitative research methods, ethnography, grounded theory, and phenomenology, qualitative descriptive research methodology does not have a clearly defined process or founder; however, it is grounded

in the systematic reasoning and epistemological foundations of the nursing discipline (Giorgi; Thorne, Kirkham and MacDonald-Emes).

In light of my research population (migrant Latino adults with diabetes) and the challenges of cross language/cross cultural data collection, via a translator, completing analysis to the level of theory development was impractical for this initial study. Even in fluid and probing interviews in a shared language, individuals have difficulty articulating lifelong assumptions underlying their everyday practices and habits. This limitation was accentuated, in this study, with a data collection process that crossed not only culture but language as well.

Theoretical conceptual development in this cross-culture/cross-language project would have been extremely difficult and likely inaccurate because subtle, or not so subtle, language nuances, meanings, implications and cultural assumptions are very easy to miss and therefore the level of abstraction needed for theory development was not possible.

However, a thorough description and explication of the themes and categories focusing on the (a) social processes that support, enhance or inhibit diabetes self management, (b) influence of the family social context in conceptualization and enactment of diabetes self management, and (c) perception of migrant status and its influence on diabetes self management that emerged from the data was a reasonable outcome expectation. It would be inaccurate to present these findings as “grounded theory” when in fact full theory development was not a practical outcome expectation.

An inductive qualitative description with a grounded theory analysis approach was, however, very appropriate because the underlying research question was social process and concept development oriented. In utilizing this rigorous analysis methodology I was able to articulate those themes, which emerged from the data, by remaining conceptually grounded in and sensitive to the data itself. “Getting the facts, and the meanings participants give to those facts right, and then conveying them in a coherent and useful manner is the essence of qualitative descriptive research and should not be considered trivial or inherently easy” (Sandelowski, 2000, p. 336), especially in light of the data collection challenges inherent in this research project. The main features of grounded theory analysis (constant comparative analysis, coding, categorizing, and memo writing) guided my conventional content analysis approach (Glaser, 1978, 1992; Glaser & Strauss, 1967).

### Qualitative Content Analysis

Naturalistic inquiry as described by Lincoln and Guba (1985) is the contact with persons in their natural environments that produces rich, descriptive data, which helps in the understanding of those persons’ experiences. Human beings come to define themselves through social interaction with others in the forms of social roles, expectations, and learned perspectives (Glaser, 1978), concepts central to my research question. Qualitative content analysis focuses on the contextual meaning to “provide knowledge and understanding of the phenomenon under study” (Downe-Wamboldt, 1992, p. 314).

Content analysis, widely used in qualitative research, has three distinct approaches. These approaches have been classified as conventional, directed, and summative and are used to interpret meaning and therefore adhere to the basic tenets of naturalistic inquiry. The major differences lie in the coding schemes and the origins of the codes utilized during analysis (Hsieh & Shannon, 2005). Conventional content analysis derives codes directly from the text data. Directed analysis begins with a theory or relevant research as a guide for initial codes, in an attempt to add further description or new information to an incomplete theory. The goal is to extend or validate a theory or framework and has been referred to as deductive category application (Hsieh & Shannon, 2005). Summative content analysis typically begins with identifying and quantifying words or content in the text data with the goal of understanding the contextual use of the word or content. These words are then quantified in an attempt to explore usage rather than infer meaning (Hsieh & Shannon, 2005). This approach is often referred to as manifest content analysis (Potter & Levine-Donnerstein, 1999). Based on the research questions for this study, which direct the analysis approach, conventional content analysis was utilized.

#### Conventional Content Analysis

Conventional content analysis is used to describe a phenomenon when existing theory or research is limited. This approach allows the categories and names of categories to emerge from the data and is the initial approach in many qualitative methods. The researcher immerses herself in the data by first reading all the data repeatedly to obtain a sense of the “whole.” Data text is then read word for word, highlighting text that appears

to capture the key thoughts or concepts thus deriving codes from the data itself (Hsieh & Shannon, 2005; Miles & Huberman, 1994; Morgan, 1993; Morse & Field, 1995). Codes are then categorized relative to how they are related and linked; grouping codes into meaningful clusters (Coffey & Atkinson, 1996; Patton, 2002, Hsieh & Shannon, 2005).

This approach has the advantage that the analysis derives directly from the study participants without preconceived categories being imposed on the data. This approach is similar to that of grounded theory analysis but rather than theory development, conventional content analysis results in concept development (Lindkvist, 1981).

#### Sample Inclusion Criteria

Sample size in this qualitative descriptive study is dependent on the point of data saturation. Data saturation is based on the “data bits” or words, phrases and sentences, describing the phenomenon, from participant interviews (Phillips & Rempusheski, 1986). Data saturation occurs when the researcher sees similar data over and over again and becomes empirically confident that a category or descriptive category is saturated (Glaser, 1978; Glaser & Strauss, 1967). “The ultimate goal is to obtain cases deemed to be information rich for the purpose of the study” (Sandelowski, 2000, p. 338). Data saturation was anticipated to be achieved with a total of 12-20 informants/participants, each interviewed once.

Inclusion criteria for participants were (1) self-reported Mexican origin, to obtain data reflective of one culture, as they constitute the largest proportion of Latino individuals in southwest Idaho, 7.9% of the state population (US Census Bureau, 2003). (2) A type 2 diabetes diagnosis for 1 year or more. Having lived with diabetes for a

period of one year or longer provided participants with experience living with this disease, and therefore expertise in the process of living with diabetes. (3) Adults 40-65 years of age, the age range representing the highest percentage of persons with a type 2 diabetes diagnosis. Recruitment focused on inclusion of an approximately equal gender distribution given that the process of living with diabetes for males and females is likely different based on the tradition of females being responsible for the health of the family in this population. Maximum variation sampling was especially pertinent in this qualitative description as it allowed the researcher to explore the common and unique manifestations of a phenomenon across a broad range of phenomenally and/or demographically varied cases (Sandelowski, 1995; Giorgi, 1992; Trochim, 2001). In order to obtain data that reflected these differences it was vital to have as near as possible equal representation of males and females. Although the majority of the migrant farm worker population is male, approximately one-fourth are females who migrate with the larger male population, working in the fields and/or to fulfill female family roles (Aday, 2001). Purposive sampling, a process of selecting individuals to participate based on their contribution to the development of a full description of the phenomenon, was utilized (Sandelowski, 1995; 2000; Trochim, 2001).

#### Human Subjects Protection

IRB approval for this research project was obtained from the University of Arizona Human Subjects Protection Program (Appendix A). Informed consent was obtained at the time of interview; and participants were informed of their right to withdraw from the study at any time. Potential participants were instructed on what to

expect with involvement in the research project to include time commitment, purpose of the study, and right to decline to answer any question(s), and the ability to withdraw at any time. Consent forms (Appendix B) were written in English at the sixth grade reading level, translated into Spanish by a bilingual translator familiar with the local dialect. This was then back translated to verify language equivalence. Consent forms were read to potential participants and each were given a printed copy. Questions were encouraged and answered. Signed consent forms were maintained in a locked cabinet in the Office of Nursing Research in accordance with University of Arizona, College of Nursing regulations.

#### *Potential Risks*

Although the majority of migrant farm workers are working in the United States legally, some may in fact be undocumented, which may have resulted in hesitation to participate in this study, because of fear of identification of undocumented status. Additional protection and assurance of confidentiality and protection of personal information provided to me was imperative. No individual information was shared with the clinic staff and clinic records were not accessed during this research project. In addition, the clinic does not ask or pursue information related to document status nor did I. If identification of undocumented status arose during the research process, this information remained confidential and was only reported in the aggregate if it provided supporting data for the research questions. Research findings will be shared with the clinic in aggregate form only after the conclusion of this research project. I have the utmost concern for the protection of the identity and documentation status of research

participants; therefore, ongoing assessment and vigilance was undertaken to protect these individuals from harm in agreeing to participate in this study. In addition participants were informed that their choice whether to be involved in research had no impact on their care at the clinic; there was no influence on care regardless of choice to participate or not.

### *Potential Benefits*

There may be no direct benefits to the individual participants in the research project. The potential benefit of this research was new knowledge that could then be used to develop interventions and educational programs that are culturally congruent and meet the needs of the migrant Latino population. In addition, this new knowledge may assist in improving the health outcomes and decreasing health disparities and healthcare costs of this vulnerable population. The potential benefits of decreasing disease morbidity and disability for this population were greater than the potential risks to participants with the mechanisms to minimize risks outlined above.

### *Instrumentation*

Level of acculturation was described for each participant utilizing a subset of questions from the Acculturation Rating Scale for Mexican Americans II (ARSMA-II) instrument (Appendix C) which measures cultural orientation toward the Mexican culture (MOS) and the Anglo culture (AOS) independently (Cuellar, Arnold & Maldonado, 1995). The purposes were (1) to aid in identifying breadth in the sample, to yield rich findings and (2) provide descriptive statistics of the study participants. The two cultural orientation subscales of the ARSMA II revised scale have good internal validity (Cronbach's Alpha = .86 and .88 for AOS and MOS respectively). Additionally, the



ARSMA II revised scale yielded a Pearson's correlation coefficient of  $r = .89$  with the original scale (Cuellar, Arnold & Maldonado).

### Recruitment

Recruitment was carried out at the Community Health Clinics, the three migrant farm worker camps in southwest Idaho, and local migrant farm worker community outreach events. Recruitment flyers (Appendix D), in both Spanish and English, requesting volunteers were prominently displayed in the reception area and patient exam rooms at each clinic. On-site recruiters (clinic nurses and medical assistants) also offered to read the flyers to potential participants as needed and desired to address varying literacy levels. On-site, bilingual, bicultural recruiters (clinic nurses and medical assistants) were utilized to recruit and screen potential participants for inclusion. I trained on-site recruiters (clinic nurses and medical assistants) to watch for individuals who fit the inclusion criteria for the study, and the need to maintain confidentiality of potential participants, during an educational in-service conducted at the clinic. In addition, on-site recruiters (clinic nurses and medical assistants) were provided recruitment flyers (Appendix D) that outlined inclusion criteria and contact information for myself and my data collection translator, to distribute to potential participants. The privacy of the research participants was maintained by the research staff with only the researcher and data collection translator knowing the identity of actual research participants. Participants chose where and when they wanted to be interviewed.

Recruitment at the migrant farm worker camps was organized in coordination with scheduled community events such as health fairs, outreach health screenings, and

social celebrations. Again this was carried out utilizing bicultural, bilingual recruiters (clinic nurses and medical assistants doing outreach in the migrant camps). In addition, recruitment utilizing radio announcements on the local Spanish radio station and with announcements in church bulletins with predominantly Latino congregations was completed. The script for radio and church announcements was the same as the recruitment flyers (Appendix D). Recruitment efforts sought out females and males, utilizing current participants as facilitators to recruiting other potential participants (snowballing technique). Focused efforts to recruit females was completed utilizing snowballing techniques (i.e.: asking male participants if their spouses, mothers, family members, friends would be eligible participants.). As I suspected, male participants were the more challenging group to recruit and therefore, similar efforts were utilized with enrolled females.

Acknowledging the challenge of recruitment of minority and marginalized populations, I collaborated with my culture broker, the Community Health Clinic staff and board of directors, and members of the Idaho Hispanic Caucus for Research and Education who agreed to assist with recruitment. They were provided with recruitment flyers and received instructions specific to participant recruitment for this research project. Procedures that promoted trust and minimized suspicion, such as individualized, verbal invitations, demonstrating *personalismo* (personalization), and *respecto* (respect), increased successful recruitment (Crist & Escandón-Dominguez, 2003). However, culture and power differentials between participants and the researcher were anticipated (Aday, 2001; Flaskerud, & Winslow, 1998). The researcher could be seen as not only an outsider

but also as a member of the professional healthcare community. Establishing *confianza* (confidence) and *confiar* (trust) was crucial to successful recruitment. The presence of a bilingual/bicultural translator helped minimize these challenges in addition to providing cultural information regarding the potential participants' level of comfort or anxiety. Although the majority of migrant farm workers are working in the United States legally, some may in fact be undocumented which, fearing identification of undocumented status, may have resulted in hesitation to participate in this study.

Recruitment efforts proved to be more challenging than anticipated despite directed efforts to immerse myself within the population at local events with the assistance of my culture broker, likely related to events occurring at the time. The farm work season began early and due to a prosperous season, work was plentiful and unusually demanding, resulting in less free time to devote to participation in research endeavors. In addition, heightened distrust was present due to recent and ongoing immigration raids and arrests in the southwest Idaho valley. These factors adversely affected the ease of recruitment of potential participants. In light of these factors, with approval of the IRB, I extended my recruitment efforts to those individuals living outside the migrant farm worker camps and increased my visibility within the population which proved successful.

### Data Collection

Data collection was directed toward discovering the what, where and who of the events and experiences of living with diabetes for the migrant Latino. With this focus, in-depth interviews were conducted using open-ended questions guided by participant

responses. A bilingual/bicultural translator assisted with the interviews in the language preferred by the participant.

For interviews in Spanish:

1. I asked the question in English.
2. The translator then asked the participant in Spanish.
3. The participant answered in Spanish (or English), if in Spanish.
4. The translator repeated the answer in English.

In this process, the audio recording and transcripts of the interview automatically contained a Spanish and English translation of the interview. This process also provided a mechanism to confirm accuracy of translation which was completed by a third party, my bilingual transcriptionist/translator.

Informed consent was obtained and participants were informed of their right to withdraw from the study at any time. Consent forms (Appendix B) were written in English at the sixth grade reading level, and translated into Spanish by a bilingual translator familiar with the local dialect. This was then back translated to verify equivalence. All interviews were recorded in digital audio format, with the consent of the participants, and transcribed verbatim to include both the Spanish and English content. For those interviews with extensive discussion sections in Spanish, a transcribed English translation was completed to ensure no pertinent data was lost during real time translation. An arbitrarily chosen thirty percent of the data transcripts were randomly selected and reviewed for accuracy of meaning consistency between English/Spanish by two outside bicultural/bilingual individuals. These individuals are actively involved in

translation roles and education for the local Latino population, both personally and professionally. This secondary analysis for accuracy of meaning consistency of the Spanish/English translations allowed for identification of trends of translation inaccuracies. When this occurred, additional training with the translator was completed, and all Spanish transcripts were then reviewed by the outside bicultural/bilingual individuals. All transcripts were compared to the audio tapes by me, the data collection translator, and the transcriptionist for accuracy. Interviews were approximately 90 minutes in length and were conducted either in the participant's home (n = 4) or at the Terry Reilly Health Services Nampa Clinic (n = 6).

Data collection required the training of a bilingual (Spanish/English) individual who is trusted and readily accepted in the Latino community in collaboration with a culture broker from the community. Extensive training in the responsible conduct of research was required to maintain protection of the research participants, ensure consistent data collection procedures, and maintenance of data security. As part of the training mock interviews were completed and utilized as an educational tool and to confirm knowledge of data collection procedures. Open-ended interview questions were used with each subsequent question guided by the information received. Proposed initial questions and potential prompts are included in Appendix E.

Data collection presented the challenge of working through a translator. A single translator was utilized during all interview sessions in an attempt to decrease contextual translation discrepancies. Current research evaluating the use of translators for study data collection recommends using one individual to translate collected data so translations are

completed with consistent wording and phrases (Twinn, 1997; Esposito, 2001). Translation was completed for contextual meaning rather than simply verbatim. The contextual meaning of the words is more accurate than the words themselves. The translator and transcriptionist were given instructions regarding inference, wording, and phrasing, emphasizing the principle that translation for meaning promotes conceptual equivalence (Crist, Velazquez, Durnan, & Figueroa, 2006). Translators were asked to identify words that reflected different connotations or phrases that were awkward when back translated (Hilton & Skrutkowski, 2002; Nelson, McDermott & Palchanes, 1994). Once collected data was transcribed, data coding was undertaken. Data collection and analysis was completed concurrently, consistent with the constant comparative analysis method of conventional content analysis and grounded theory, whereby data collection and analysis mutually shape each other. Sandelowski (2000) describes qualitative content analysis as “reflexive and interactive as the researcher continuously modifies their treatment of the data to accommodate new data and new insights about the data” (p. 338).

### Data Analysis

Qualitative content analysis incorporating grounded theory analysis techniques as described by Glaser and Strauss (1967) and Glaser (1978) was completed. Conventional qualitative content analysis is data derived with codes systematically applied that are reflective of the data itself (Sandelowski, 2000; Miles & Huberman, 1994). Data were analyzed using a system of inductive analytic steps, a process of constant comparative analysis. The interview data was broken down into data bits, the smallest piece of information that presented meaning (codes). These were then grouped together as they

represented similar meaning developed into categories, and themes. This involved a continual process of comparing data bit with data bit, data bit with category, and category with category to discover the similarities and differences. Throughout this analysis process, new data was compared and coded in relation to the properties of the emerging categories. Themes and categories focusing on the (a) social process that support, enhance or inhibit diabetes self management, (b) influence of the family social context in conceptualization and enactment of diabetes self- management, and (c) perception and experience of migrant status influence on diabetes self- management were identified.

Categories and their associated interpretations were then used in subsequent interviews to be verified, corrected and/or challenged. Throughout the data collection and analysis process, the researcher utilized notes or memos created during and after interviews, while coding and categorizing data bits, and as themes developed. In addition, emerging codes, categories and themes were discussed and reviewed with my dissertation chair. Discrepancies were discussed, critiqued, reanalyzed, and resolved in this process (see Trustworthiness section for further details). The constant comparative analysis continued until saturation (no new themes and meaning are emerging) was reached ( $n = 10$ ). The final step was the explication of the themes that had emerged from the data.

### Trustworthiness

The criteria for evaluating research rigor differ in qualitative and quantitative inquiry. Trustworthiness, with its associated criteria, is the qualitative research term that corresponds to scientific rigor (e.g., validity and reliability) in the quantitative sector. Trustworthiness is the process by which researchers establish confidence in the “truth” of

their research findings (Lincoln & Guba, 1985). Varying terms relating to research rigor can be found in the qualitative literature; however, the themes and processes embedded in these terms present little variation. Utilizing the terminology presented by Lincoln and Guba (1985) (credibility, transferability, dependability, and confirmability), consistent with this form of naturalistic inquiry, the following strategies were employed to ensure rigor in this research project.

### *Credibility*

Credibility refers to the accuracy of findings and interpretations presented in qualitative research studies; the “truth value” (Lincoln & Guba, 1985). Credibility, roughly equivalent to internal validity in quantitative studies, is assured when a study presents such a faithful description or interpretation that the individuals having the experience can immediately recognize it from the description and interpretations presented. To maintain credibility of the findings, ongoing member checks were conducted with each subsequent study participant. Member checks, the process whereby data, analytic categories and themes are tested with members of the population from whom the data was collected, is the most crucial step for establishing credibility (Lincoln & Guba).

Throughout the research process, as categories and themes began to emerge from the data I confirmed with study participants and cultural experts the “truth value” of these themes to ensure the analysis was representative of their experiences. This was particularly important in light of cross language data collection. Developing categories, themes, and proposed relationships were presented to the study participants to elicit their



views on the adequacy of representation; i.e., whether themes identified by the researcher reflected their experiences. Study participants who expressed interest, at the time of their initial interview, in participating in a final review were contacted again at the end of the study to again confirm the credibility of research findings (Lincoln & Guba, 1985). A total of 4 participants participated in this final review and confirmed that the study findings were representative of their experiences.

### *Transferability*

Transferability, roughly equivalent to external validity, is also referred to as “fittingness.” Research findings are evaluated based on whether they are applicable to similar contexts outside the study situation. Audiences view the findings as meaningful and applicable in terms of their own experiences, recognizing themselves in the findings. Purposeful sampling and “thick” description provided the basis for establishing transferable research findings. The researcher is obligated to provide sufficient detail of the data, context, and findings to enable other researchers to judge the applicability in other contexts. To meet the criterion, detailed descriptions are presented in Chapter IV.

### *Dependability (Auditability) and Confirmability*

Dependability and confirmability, as proposed by Lincoln and Guba (1985), are the criteria of rigor or merit relating to the consistency of research findings; referred to as reliability in quantitative research. “The study and its findings are auditable when another researcher can clearly follow the decision trail used by the investigator in the study” (Sandelowski, 1986, p. 33). Evidence for dependability and confirmability was generated through the creation of an audit trail of memos, notes, raw data and the reduction and interpretive products developed throughout the investigation, allowing others to review the process and identify without question how interpretations and research decisions were made. My dissertation chair, Dr. Janice Crist, was utilized for this review. Interview transcripts, codes, and emerging categories were reviewed with my dissertation chair following the third, fifth, and ninth interview to verify the consistency of the analysis process. In addition, my entire dissertation committee provided a final review of the analysis and interpretive process. Each of these strategies further enhanced the trustworthiness of my research findings in this challenging cross cultural/cross language project

### Summary

A study using qualitative descriptive design, utilizing inductive grounded theory techniques, was conducted. Data were analyzed using a system of inductive analytic steps, a process of constant comparative analysis. The interview data was broken down into data bits, the smallest piece of information that presents meaning. These were then grouped together as they represented similar meaning developing categories, and themes.

Themes and categories focusing on the (a) processes that support, enhance or inhibit diabetes self-management, (b) influence of the family social context in conceptualization and enactment of diabetes self-management, and (c) perception and experience of migrant status influence on diabetes self management were identified. Trustworthiness of the research findings was achieved by adherence to the criteria of credibility, transferability, and confirmability as described by Lincoln and Guba (1985).

## CHAPTER IV: FINDINGS/RESULTS

### Description of Sample

Demographic data (Appendix C) was collected on all study participants and analyzed quantitatively. In addition, a subset of questions from the Acculturation Rating Scale for Mexican Americans II (ARSMA-II) instrument, which measures cultural orientation toward the Mexican culture (MOS) and the Anglo culture (AOS) independently (Cuellar, Arnold & Maldonado, 1995) was utilized to obtain basic acculturation data (place of birth of participants and two preceding generations and language[s] spoken and read). This data was utilized only for the purpose of identifying breadth in the sample and provide descriptive statistics of the study participants.

A total of 10 participants were interviewed, 6 female and 4 male, ranging in age from 46-65 years (mean 56.5 years). The mean duration of diabetes diagnosis for the sample ( $n = 10$ ) was 10 years (range 1.5 – 40 years). Six participants were married, one was divorced, and three were living with a partner but not married. The number of years participants were engaged in migrant farm work ranged from 2 – 50 years (mean 21.5 years). Three participants were no longer active farm workers due to disability ( $n = 2$ ) and finding other employment ( $n = 1$ ) with change in employment status occurring within the past 5 years (mean 2.7 years). Study participants reported living in the United States a mean of 32 years (range 2 – 65 years). Thirty percent (all female) reported that they accessed healthcare services in Mexico. Seventy percent of the sample rated their ability to pay for necessities as “almost enough” (30%) or “never enough” (40%). Participants reported frequency of returning to Mexico from “every 6 months” to “never” with the

most common response being “every 1-2 years.” Table 1 provides detailed demographic information divided by gender of participant.

TABLE 1. Participant Demographic Data

	Male (n=4)	Female (n=6)
<b>Age</b>		
Mean	57	56
Range	46 - 64	51 - 65
<b>Marital Status</b>		
Married	3	3
Living w/Partner	1	2
Divorced		1
<b>Ability to Pay for Necessities</b>		
More than Enough		1
Just Enough		2
Almost Enough	2	1
Never Enough	2	2
<b>Years Diabetes Diagnosis</b>		
Mean	8.6	11
Range	1.5 - 17	2 - 40
<b>Years Living in United States</b>		
Mean	34	30
Range	19.0 - 46.0	3 - 65
<b>Years Migration Work</b>		
Mean	23	20
Range	16 - 30	2 - 50
<b>Access Healthcare in Mexico</b>		
Yes	0	3
No	4	3

Place of birth of participants are presented in Figure 1 and of two preceding generations in Figure 2 and Figure 3. Language(s) read in the home are presented in Figure 4.

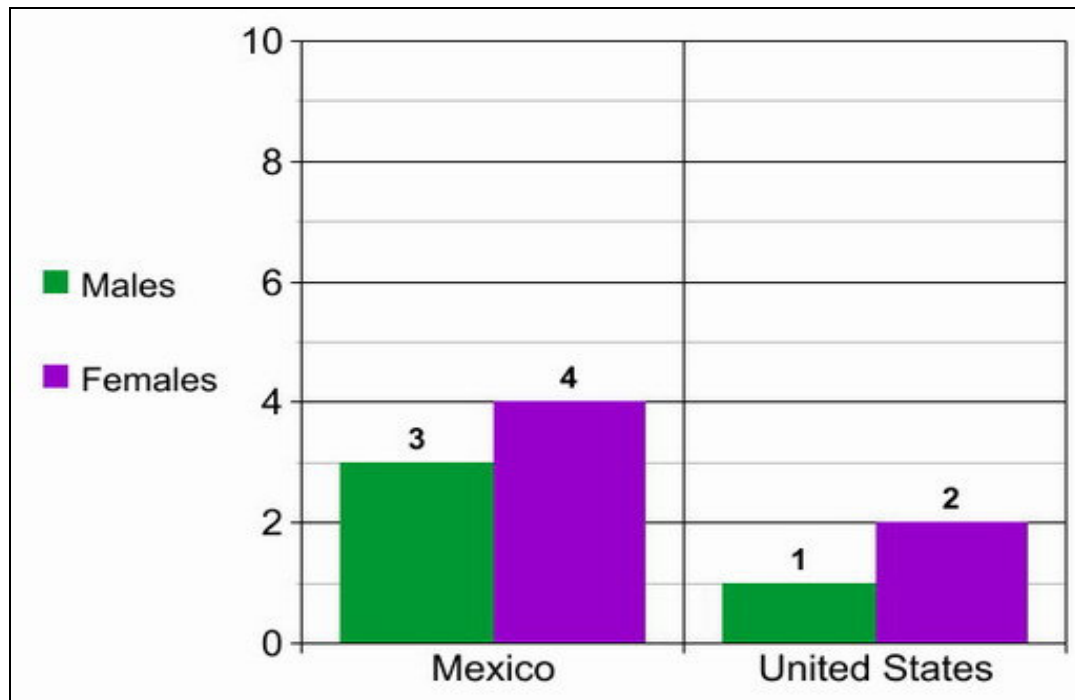


FIGURE 1. Birth Place Participants

Seventy percent of participants, 90% of their parents, and 83% of their grandparents were born in Mexico.

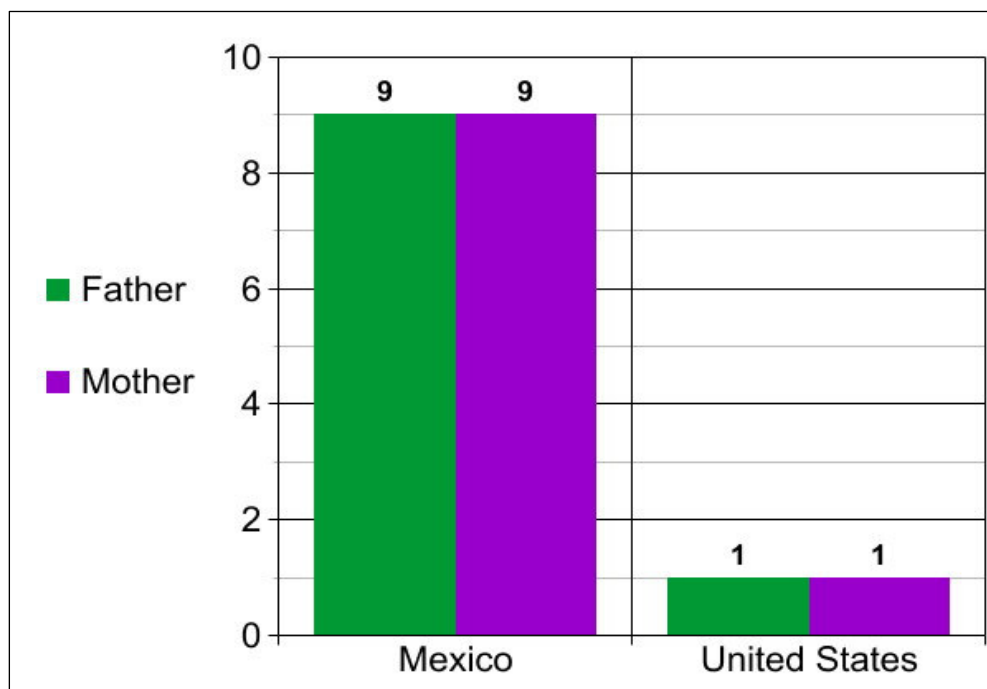


FIGURE 2. Birth Place Parents

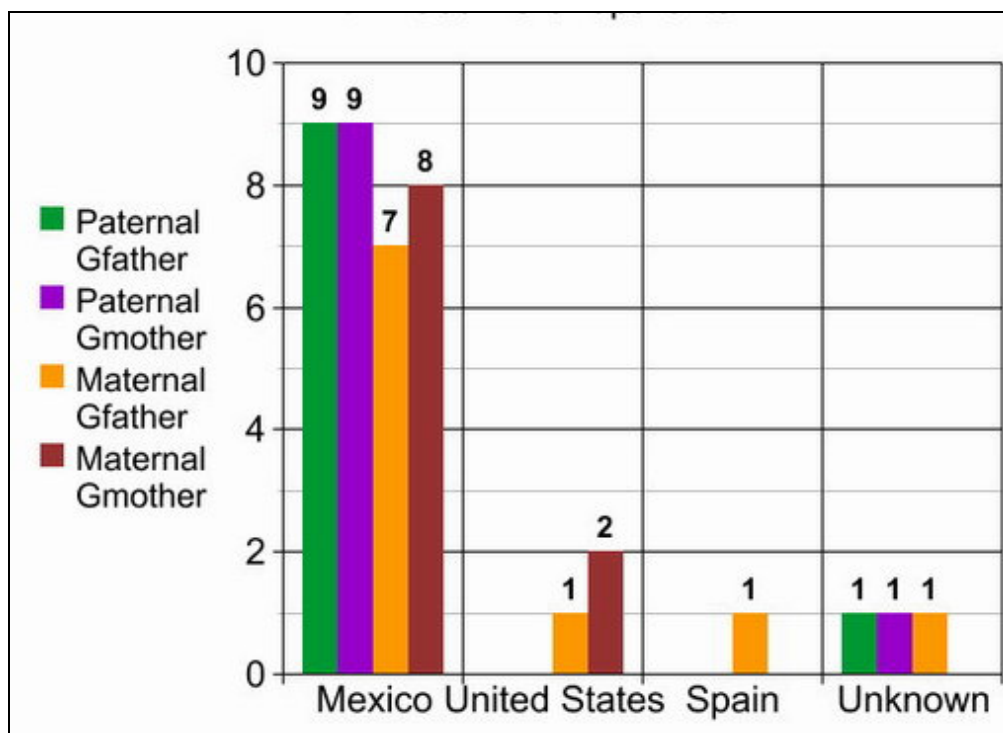


FIGURE 3. Birth Place Grandparents

*Language(s) spoken in the home* included 60% “Spanish only” and 40% both “Spanish and English”. *Language(s) read* was 40% “Spanish only” and a 20% illiteracy rate was reported.

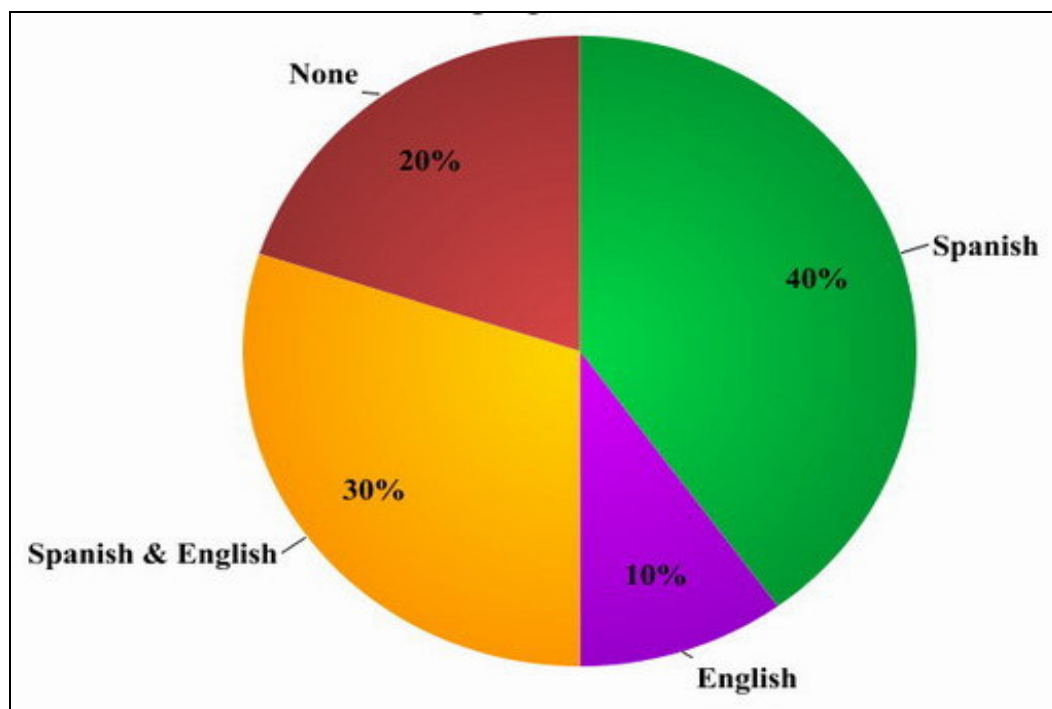


FIGURE 4. Language(s) Read (Participants)

#### Summary

Demographic and basic acculturation data has been presented to provide specific background information for the ten participants interviewed in this research study. The majority of study participants self-reported low socio-economic status, Mexican national origin, and monolingual in Spanish. This data provides an overview of the population sample from which the study findings emerged.



## Findings

An over-arching meta-theme *Self Management in a Social Environment* emerged during the data analysis process. Every aspect of the process of self-management, as described in the four major themes that follow, was influenced by the social context. Analysis focused on answering the following research questions: (1) What are the socio-cultural influences that guide self-management practices among migrant Latino adults with type 2 diabetes? (2) How does the social context, including the ways in which family is viewed, influence the way in which migrant Latino adults conceptualize and enact diabetes self-management? and (3) How do perception and experiences of migrant status and socio-economic status influence the way migrant Latino adults' self-manage type 2 diabetes? The themes, categories, and codes that emerged during the analysis of interviews conducted with Mexican migrant adults with type 2 diabetes are presented. The four major themes, which emerged from the data, (1) Family Cohesion, (2) Social Stigma of Disease, (3) Social Expectations/ Perception of "Illness," and (4) Disease Knowledge and Understanding, will be outlined and described.

### *Major Theme - Family Cohesion*

*Family Cohesion*, the first major theme to emerge from the interview data, is supported by the conceptual categories of "Surveillance," "Support," and "Family First." *Family Cohesion* is representative of the familist tradition of the Mexican culture. This theme emerged from the data as a central determinant of feeling supported; a motivator for diabetes self-management; and a potential stimulus for feelings of guilt when the health of self overshadowed the potential health risks of family members. Table 2

outlines these supporting categories, their associated codes and participant interview excerpts reflecting these codes and categories.

TABLE 2. Major Theme *Family Cohesion*

Category	Code	Excerpt
Surveillance	Monitoring	<i>"...she's the one who's... You have to do this...And you have to do that and she's always on me...And she's always... You know... If it wasn't for her, I wouldn't be here now probably." (M1)</i>
	Advising	<i>"...mother was always looking after me that I eat right and take care of myself. Because I didn't give it much importance that I had diabetes" (F4)</i>
	Directing	<i>"there doesn't go a day without somebody reminding me about, 'Oh....I haven't seen take your medicine today,' or 'I haven't seen you take your shot, your insulin' uh...somebody is always reminding me or asking if I did, uh...because they are always looking out for each other." (M2)</i>
Support	Encouragement	<i>"...my daughter would tell me, 'No, you can do it with your diet. You're not the only one with diabetes. There are kids that have it too; they're checking themselves [their blood sugar] at school'...she said." (F3)</i>
	Providing Food Finances	
	Gathering of Family	<i>"and then, then I got sick... and then I decided that I needed to bring my family here, and then that way I wasn't coming and going to México, so often..." (M2)</i>
Family First	Gender Role	<i>"always your uh... husband or wife uh...is there to help you and...and you promised to help each other in the good and bad, and he says that...that's been how my marriage has been and it's good" (M2)</i>

Category	Code	Excerpt
		<p>“...was living with a brother, brother in law and my mother in law, and they helped me until got my family here... when I got sick, I thought maybe he had the flu, or that was gonna go away... and I didn’t really wanna come to get any medicine, because I didn’t really know too much about diabetes at the time... and I didn’t really wanna get medicine, but... uh....my brother in law told me that I should, because I was gonna uh...be needed by my family, and I should come and get medicine” (M2)</p> <p>“It’s like my brother-in-law, he didn’t know. He never got checked by a doctor, never. One day I seen him outside, and he showed up. He goes, Hey.. I say you look kind of tired there. He goes, Uh, my back’s hurting a little bit. Then I asked my wife to tell his wife to have him checked because he might have diabetes, and he didn’t want to go. He finally got forced to, and he was diabetic” (M1)</p> <p>“in the beginning my uh...mother-in-law was the one that helped me...she was the one that prepared my meals ...I was only in charge of freezing the water, so that it would be really cold to drink, because... I wouldn’t drink it uh... tap water.... it would’ve been better for my wife to be here and take care of and help me, because that’s always more beneficial as the families help” (M2)</p> <p>“...my partner—hmm—I have to cook for him and he does heavy labors so...uh, I cook a lot of food and then I eat it too” (F4)</p> <p>“...how could I not [have] thought about it, I felt, ‘how could you be so vain, I mean, so self-centered.’ Because, it was 4 months and honestly I just was thinking about it and, ‘oh my god!’ it just, like that.” “How could I not been thinking about them?! How could I have been so in me? It was just like that, one morning I woke up and Oh my god!” [discussing delay in revealing dx and informing sisters of need to be evaluated for diabetes](F1)</p>
	Motivation	<p>[Holding baby] “...this one came along, and I have to be—she’s the one that’s keeping me strong now.... This is what’s keeping me going.” (M1)</p>

*Categories: Surveillance and Support*

Overall, participants described the ever-present family support provided to them in the day-to-day process of managing their diabetes. When faced with unexpected and ongoing healthcare needs they turned to family for assistance. Family members (including nuclear, extended and kinship network members consistent with cultural definition of “family”), provided encouragement, direction and advice to participants in the process of disease management.

*Category: Family First*

The category “family first” illustrates social and family processes that are reflective of a familist orientation. Female participants discussed how they cooked separate meals for themselves and their families stating *“I just made my food and I didn’t give them my food because I think, well, they were not going to like what I eat, right?”* (F3), or deferring to the needs of family members over their own *“...my partner—hmm—I have to cook for him and he does heavy labors so...uh, I cook a lot of food and then I eat it too”* (F4).

One female participant, discussing how she delayed revealing her diabetes diagnosis to family members is reflective of the category “family first.” This participant was reflecting on her responsibility to inform her sisters that she had diabetes, and the need for them to also be evaluated for diabetes. Socio-cultural expectations of “family first” are illustrated in her excerpt: *“...how could I not [have] thought about it? I felt, how could you be so vain, I mean, so self-centered. Because, it was 4 months and honestly I just was thinking about it and, oh my god! It just, like that. How could I not*

*been thinking about them? [her sisters] How could I have been so in me? It was just like that, one morning I woke up and Oh my god!” (F1).*

Participants described family as their primary motivator in disease management, commenting *“I have to be there for my family” (M2)* and *“don’t want me to get deathly sick from that disease because it would hurt them [daughters of participant] (F3).* A father, holding his newborn infant, stated *“...this one came along, and I have to be—she’s the one that’s keeping me strong now... This is what’s keeping me going” (M1).*

Female family member as caregiver emerged as a code during data analysis. One participant, separated from his wife and children when he was first diagnosed with diabetes, was cared for by his mother-in-law until he was rejoined with his wife who then re-assumed her role as caregiver *“in the beginning my uh...mother-in-law was the one that helped me.... she was the one that prepared my meals” (M2).* Female as caregiver and responsible for the health of family members is also illustrated in the following comment by a participant who believed a family member needed to be evaluated for diabetes; *“It’s like my brother-in-law, he didn’t know. He never got checked by a doctor, never. One day I seen him outside, and he showed up. He goes, Hey... I say... you look kind of tired there. He goes, Uh, my back’s hurting a little bit. Then I asked my wife to tell his wife to have him checked because he might have diabetes, and he didn’t want to go. He finally got forced to, and he was diabetic” (M1).*

*Family Cohesion*, a major theme for all participants, was integral to diabetes self-management practices. The familist tradition of the Mexican culture emerged from the data as central to feeling supported emotionally and financially; a motivator for diabetes

self-management because the “family needs me”; and a potential stimulus for feelings of guilt when the health of self overshadowed the potential health risks of family members.

*Major Theme – Social Stigma of Disease*

The second major theme that emerged from the interview data, *Social Stigma of Disease*, encompasses the categories of “Horrible Monster” and “The Big ‘D’.”

Perceived social stigma when diagnosed with diabetes was emotionally devastating to many of the study participants resulting in denial and embarrassment. The social perception of individuals with diabetes as being “sick” appears to be the underlying foundation of the stigma surrounding diabetes. Table 3 outlines the theme’s supporting categories, their associated codes and participant interview excerpts reflecting these codes and categories.

TABLE 3. Major Theme *Social Stigma of Disease*

Category	Code	Excerpt
Horrible Monster	Devastation	“...it was awful to me. It was just devastating, I couldn’t talk even about it, I was very gloomy and I couldn’t even bear to tell my family because, as far as in my blood family there was never a diabetic, ever, and so I couldn’t, it was just like I was in a tunnel.” (F1)
	Denial	“That’s how bad it was, okay. I wanted to kill myself, okay. One day, my brother he goes, ‘Why are you going to go see the counselor for?’ (M1)
		“The reason I was gloomy is that, in our, in my Hispanic culture I’ve seen it all the time, that anybody that had Diabetes was just about the worst thing that there was, nothing compared to it, not seizures, not hypertension, nothing. Diabetes was a horrible monster; you were worthless if you had Diabetes.” (F1)

Category	Code	Excerpt
	Embarrassment	<i>“ [only told] the members of my family, because I was embarrassed to say anything. I felt sick.” (F3)</i>
The Big “D”	Shameful	<i>“But I did think that everybody was going to laugh at me.” (F3)</i>
	Worthless Loss of Manhood	<i>“Diabetes is a very bad disease, one of the worst because it gives your body, when you have cancer or other diseases, you see them live. But this thing, if you don’t keep it in check, it destroys you. Boys that were handsome and were chasing all the time....they’re not the same. You can tell when somebody is Diabetic.” (M3)</i>
	Everyone Knows	<i>“Even- they’re young and children they think about that [diabetes]...what it does” (M2)</i>  <i>“Not Diabetes, no, and then I, and then it was a shameful thing, it was so shameful. And somehow, I didn’t know it would go out to, spread out there to other people...” (F1)</i>

*Category: Horrible Monster and the Big “D”*

Perceived social stigma when diagnosed with diabetes emerged during data analysis and was emotionally devastating to many of the study participants resulting in denial and embarrassment. Participants expressed surprise when faced with the realization that “everyone knew” their diagnosis despite efforts to conceal this from family and community members. One participant stated *“...in my Hispanic culture I’ve seen it all the time, that anybody that had Diabetes was just about the worst thing that there was, nothing compared to it, not seizures, not hypertension, nothing. Diabetes was a horrible monster; you were worthless if you had Diabetes” (F1)*. Another participant compared diabetes to having tuberculosis (TB), commenting that he was told as a child that TB was the worst thing but that this was not true; diabetes was.

Participant comments during the interviews often reflected on social perceptions of individuals with diabetes as being “sick.” This appears to be the underlying foundation of the social stigma surrounding diabetes. Accordingly, *Social Stigma of Disease* ties directly into the next major theme of *Social Expectations/Perception of “Illness.”*

*Major Theme – Social Expectations/Perception of “Illness”*

*Social Expectations/Perception of “Illness”* emerged as the third major theme. The supporting categories that emerged are “Expected to be Sick,” “Disability,” and “Fiestas/Celebrations.” Deep-seated social expectations that individuals with diabetes were by definition sick and unable to carry out normal activities emerged from the data. Additionally, the biggest challenge participants faced in the struggle to control their diabetes revolved around family and social (community) gatherings common in the Mexican culture. Table 4 outlines the theme’s supporting categories, their associated codes and participant interview excerpts reflecting these codes and categories.

TABLE 4. Major Theme *Social Expectations/Perception of “Illness”*

Category	Code	Excerpt
“Expected to be Sick”	Appearance	<p>“...they’ve noticed that I don’t have [anything], because they see me like this, that to them I don’t look so...so sick, and they noticed too... They’ve told me that I look thinner because I used to be fatter. They say that. ‘Why are you skinnier?’ And I tell them because I have ‘sugar,’ but they don’t—they say, ‘It’s not noticeable.’ ” (F3)</p> <p>“Not Diabetes, no, and then I, and then it was a shameful thing, it was so shameful. And somehow, I didn’t know it would go out to, spread out there to other people. The next thing I know is, ‘Oh my gosh, you look wonderful! I thought, they told me you were so skinny, you were so skinny and so sick but you look just fine!’ ” (F1)</p>



Category	Code	Excerpt
		<i>"Not too long ago somebody said, 'oh your hair is really nice, you still can grow it?'" (F3)</i>
	Disbelief	<i>"You just stop going to functions..... it's hard to shake off what you see throughout your life"(F1) "People say they don't believe it because they see her walk daily normally and well, like everybody." (F3, spouse)</i>
	Fatigue	<i>"That's just, just what they know. They just knew that a person that was diabetic had low energy, so it affects everything. Whether you're with your husband or, in every which way you get sick so often, you lose a leg, you get purple legs, never mind, you know, it's bad circulation, you know, you get hard, oh yeah, she had Diabetes and she died of a heart attack or stroke, or oh yeah she's got a lot of ugly toenails because she's got Diabetes." (F1)</i>
Disability	Accidents Loss of Ability	<i>"...you can't work anymore. You can't work around here anymore. Nobody is gonna hire you" (M1)  "...it affected me.. kept feeling like I didn't have any energy, and then my boss would notice that I couldn't work, and then because my blood sugar would keep dropping, and uh... I kept having accidents, and then got complications with my heart, and then they told me to apply.. get some assistance... because I couldn't work..." (M4)</i>
Fiestas/Celebrations	Hardest Aspect	<i>"...it's not easy because if we have like family gatherings, everybody has potluck, and they bring food and the...you wanna eat everything...it's very hard" (M4)  "The parties and reunions and gatherings... That's what makes it harder to control his blood sugar... gonna try and think of other excuses to not go, and, so don't feel bad" (M2).  "...now that my brother and his wife have diabetes we've done less gatherings, because they're taking care of themselves..." (F4)</i>

Category	Code	Excerpt
	Disrespectful Food Central	<p><i>“... go and visit friends and they offer food...And it’s not polite to leave the plate... you know? served, and even though you tell them that you can’t eat that much they’ll say: ‘Oh come and eat, and ... here’s a little bit more....’ and, so then uh... doesn’t seem like it’s polite to refuse it, so I eat, and then that’s what causes uh... problems...” (M2)</i></p> <p><i>“...don’t wanna go because... have a lot of invitations because... every weekend or birthday or weddings or get-togethers... always have invitations, and we go because don’t want the people to think... Well, why aren’t they going? They don’t have anywhere to go... they don’t work... they, they have time, uh... so, so feel like should go... And they come and invite us, and then once there... ‘Here’s another soda. Here’s some more food. Here’s this...’ and you hate to say no... So, you, you go along with it” (M2)</i></p> <p><i>“people would think it offensive, if brought something because they didn’t... they gave an invitation to come, but not... it was not for me to bring my food or lunch, from my house, and so they would think it offensive and, and why are you bringing food when there’s food here to eat? And then, ... well once you gave your word that you’re gonna come to the gathering you should go... instead of saying: ‘Oh no I can’t come’, and saying... you know? you already committed to going and it’s not... it would be offensive not to go” (M2)</i></p>

*Categories: Expected to be “Sick” and Disability*

A social expectation that individuals with diabetes were by definition sick and unable to carry out normal activities emerged from the data. Comments, as illustrated in the excerpts in Table 3, reflected the perception that diabetes resulted in changes in personal appearance and energy level and doomed the individual to disabling outcomes (i.e., loss of limbs, heart disease, stroke, and “purple legs”) and early death.

*Category: Fiestas/Celebrations*

The biggest challenge participants faced in the struggle to control their diabetes revolved around family and social (community) gatherings common in the Mexican culture. Participants reported that these gatherings revolved around the abundance of food and celebration. Non-attendance and/or declining food offers were disrespectful and socially unacceptable. When asked what the response would be if individuals brought healthy food choices with them to these events, participants reported this would be considered rude to the hosts and would not be accepted. Due to this conflict and the desire to better control their diabetes, frequency of family gatherings was decreased and the desire to “come up with better or new excuses” to not attend community fiestas was described. In contrast, participants described the easiest self-management tasks as taking medications and monitoring blood glucose levels, however many reported infrequent glucose monitoring, especially if on oral medications alone.

*Major Theme – Disease Knowledge and Understanding*

The fourth and final theme, *Disease Knowledge and Understanding*, encompasses the categories “Disease Process” and “Family Involvement.” Participants perceived their diabetes disease process knowledge as lacking. Additionally, family members were seldom included in diabetes education sessions, contradictory to participant and family desires. Table 5 outlines the theme’s supporting categories, their associated codes and participant interview excerpts reflective of these codes and categories.

TABLE 5. Major Theme *Disease Knowledge and Understanding*

Category	Code	Excerpt
Disease Process	Diet- Healthy Food Lack of Education How? Why?	<p><i>“And then also that if they told me of course...You know? This is what’s gonna happen to you if you don’t take care of yourself...uh...Maybe if they talk about that, or show me something...Then that would be more helpful ...” (F4) [regarding clinician contact in Mexico]</i></p> <p><i>“the doctor told me that I might get sores, and that they might have to do amputations...but never told why” (F5)</i></p> <p><i>“Doctor told me about...that needed to take care about my diabetes because it could affect my vision, my kidneys, my heart.. They didn’t talk about, what...would...how it happened” (F4) [regarding clinician contact in Mexico]</i></p>
Family Involvement Make it a Fiesta	Want to Know More Not Included “Bring it to Us”	<p><i>“...in Mexico it’s different than here, because there... talk to the doctor, and...about everything that gonna see him about, and then here they only want one thing to talk about” (F4)</i></p> <p><i>“They don’t give us nothing like that, they don’t tell me nothing when I have been to the hospital. The nurse tell me ‘oh he needs to change his diet, the sugar is bad.’ I was expecting more.” (M3 spouse) [regarding clinician contact in the United States]</i></p> <p><i>“not sure if he would come to...uh...out and to a class, but if, if somebody went to him [at home]...then he would say yes automatically” (F4)</i></p>

*Category: Disease Process*

Study participants repeatedly expressed a desire for more education related to their diabetes. The interview data reflected that participants held a general understanding of the need to “eat healthy” but were unclear what this really meant. Participants expressed a need for specific guidance on how and what to cook, which they felt had not been adequately provided; *“they [healthcare providers] could have given classes on how to measure food ...food that I could eat. Tell my family what was going on. How they [family] could have helped me to take better care of ... diabetes. Give classes, really good classes on how to measure food and that kind of stuff, but they didn’t do that” (F5).* Frustration with the lack of information provided was apparent in the interviews as exemplified by the following excerpt, *“they told me that I had to watch what I eat. It was the only thing that they tell us, they don’t give us like a, you know sometimes they have a, some a, diets or something, they don’t give us nothing” (M3).*

One female participant stated *“the most difficult part is...uh...the cooking...you know how Mexican people cook, and it doesn’t even come to mind what I should cook...and healthy” (F4).* Another made the following statement when discussing the education she received when she was diagnosed with diabetes; *“He said not to eat pork. Not to eat mango, or apples, carrots, and beets...a lot of food. He said that blood sugar was never gonna be controlled. It was be--gonna be going up all the time” (F5).*

Another code that emerged from participant interviews was lack of education regarding the disease process of diabetes. Many participants described being informed, when diagnosed in Mexico, that if they did not control their blood glucose levels it would

affect other organ systems (kidney, eye, heart). However, why and how this occurs was not included in the discussion.

*Category: Family Involvement*

Family presence at diabetes education sessions, at time of diagnosis, was minimal for those diagnosed in both the United States and Mexico. Participants commented that having family attend education classes with them would have been helpful in controlling their diabetes but stated that often this was not possible due to conflicting obligations, such as work schedules. When asked if other approaches to education would help alleviate this barrier, many responded that bringing education classes to their home or community would be helpful; *“it would be beneficial for...uh...for everybody to come like...uh...the family, dad, brothers, sisters...that way they’re all informed of what I can eat...”* (F5). One participant summed it up in the following statement *“not sure if he [partner] would come to...uh...out and to a class, but if, if somebody went to him...then he would say yes automatically”* (F4). Making education a family event was described in a favorable manner.

### Summary

This chapter has provided demographic and basic acculturation data on the study participants and a detailed description of the major themes that emerged from the data. An over-arching meta-theme *Self Management in a Social Environment* emerged during the data analysis process. Every aspect of the process of self-management, as described in the four major themes was influenced by the social context. The themes, (1) Family Cohesion, (2) Social Stigma of Disease, (3) Social Expectations/ Perception of “Illness,”

and (4) Disease Knowledge and Understanding and their associated categories, and codes, that emerged during the analysis of interviews conducted with Mexican migrant adults with type 2 diabetes, were described in detail.

Analysis provided insight into answering the research questions. How these findings relate to each research question will be addressed in Chapter V.

## CHAPTER V: CONCLUSIONS/DISCUSSION

The purpose of this qualitative descriptive study was to explore the socio-cultural influences and processes associated with living with type 2 diabetes among migrant Latino adults. In this chapter, the study findings will be discussed as they relate to each of the three research questions. The limitations and implications for nursing will then be explicated. Lastly, recommendations for further research will be presented.

### Findings Related to Research Questions

Three research questions guided the inquiry for this qualitative descriptive study. The findings will be discussed as they relate to each of these questions.

#### *Research Question 1*

*What are the socio-cultural influences that guide self-management practices among, migrant Latino adults with type 2 diabetes?*

The *Social Stigma of Disease* coupled with the *Social Expectations and Perception of "Illness"* (Themes 2 and 3) present in the social environment was highly influential on diabetes management practices. The over-shadowing social stigma associated with having diabetes resulted in embarrassment, shame, and devastation on the part of individuals diagnosed with diabetes. Denial and withdrawal from social situations were common, resulting in isolation and feelings of guilt due to having diabetes. These social responses, based on deep-seated social expectations of the physical results of diabetes (justified or not) resulted in self-doubt and shame. The impact of the social stigma in this population needs to be explored further. Extensive research has been completed on the topic of stigma (e.g., Carnevale, 2007; Weiss, Ramakrishna, & Somma,



2006; Scambler, 2006); however, little has been focused on the Latino population. The available literature directed at the Latino population is related to tuberculosis (Macq, Solis, & Martinez, 2006; McEwen, 2003) and mental illness (Magana, Garcia, Hernandez, & Cortez, 2007). None were identified that focused on chronic illness in general, or diabetes specifically.

Stigma, as described by Goffman (1963), is a socially defined attribute that is deeply discrediting. These attributes are categories by which others are judged; “transforming them into normative expectations, into righteously presented demands” (Goffman, 1963, p. 2). This definition is consistent with what emerged from the data in this study. The social expectations and associated social stigma, which the participants described, created a climate in which the participants’ self-image was confronted and affronted by the image others reflected back to them. In this process, shame emerges as individuals redefine the image they have of themselves (Goffman). Changing socially defined category attributes and expectations is central to eradicating the stigma (Heijnders & Van Der Meij, 2006; Weiss, Ramakrishna, & Somma, 2006). The socially ascribed expectations of those individuals with diabetes are descriptive attributes of poor blood glucose control. In light of this, and the reported diabetes education deficiencies, improving diabetes disease process knowledge may be the route for ameliorating the stigma of diabetes in this population. This in turn would improve the health of this population through enhanced glucose control and the development of fewer complications.

The other socio-cultural factor that influenced diabetes self-management was connected to culturally-established social gatherings and celebrations. These events, an integral cultural component for this familist oriented population, incorporate “food in abundance” and as a consequence presented the most difficulty in the process of diabetes self-management. Participants reported that failure to attend these events, or to eat the food that was offered, would be disrespectful and unacceptable within the community. In addition, others reported that in an effort to manage their diabetes, the number of family gatherings had been decreased as a means to avoid unhealthy situations. These response processes however, were in direct contradiction to social norms and expectations entrenched in participants’ cultural heritage. Family and community members’ lack of knowledge and understanding in relation to diabetes management appears to be an underlying cause of this socially oriented conflict.

A lack of knowledge of the disease process of diabetes (Theme 4: Disease Knowledge and Understanding), not only for the individual but their family and community, was evident in the interview narratives. A strong desire for more information and education was expressed. However, in contrast to traditional approaches (i.e., requirement to attend education sessions during working hours and at established agencies), participants reported “bringing the education to them” and teaching entire families and communities, rather than just the individual, would be a welcomed alternative.

### *Research Question 2*

*How does the social context, including the ways in which family is viewed, influence the way in which migrant Latino adults conceptualize and enact diabetes self-management?*

As represented in Theme 1: *Family Cohesion*, family was central to the health and well-being of the study participants, consistent with familist cultural traditions (Arce, 1978; Heller, 1970; Weiler & Crist, 2007). Family, including nuclear, extended, and kinship network members, were ever-present in the process of diabetes management. Family provided emotional and financial support, encouragement, and motivation to those with diabetes. Participants reported relying on family for assistance, guidance and advice in carrying out daily self-management tasks. In addition, family members, in particular females, assumed roles of surveillance of daily tasks and assuring these activities were carried out. As a result, diabetes self-management in actuality was a family process. Additionally, as discussed earlier in relation to Research Question 1, social perceptions and expectations were very influential on diabetes self-management practices.

### *Research Question 3*

*How do perception and experiences of migrant status and socio-economic status influence the way migrant Latino adults self-manage type 2 diabetes?*

The majority of study participants reported low socio-economic status which they described as creating increased stress and concern regarding their ability to pay for needed medical care and diabetes management supplies (i.e., medications, glucose strips, and healthy food). This is consistent with well documented determinants of vulnerability

as described by Flaskerud and Winslow (1998), Aday (2001), and Rogers (1997).

However, participants described extensive financial and material support and assistance from family members (nuclear, extended, and kinship network members). This support provided access to medical supplies and resources needed to control their diabetes.

*Family Cohesion* (Theme 1) resulted in extensive resources not otherwise available to study participants. This support was a natural process within this Mexican population and not considered unusual, excessive, or demanding; instead it was a central component of “family” for which they were thankful. Again, this is reflective of the familist traditions of this population (Arce, 1978; Heller, 1970; Weiler & Crist, 2007).

Migrant status added its own unique components to the process of diabetes management. Study participants who were separated from nuclear family members, at the time of diagnosis, were influenced to “gather family together” in order to strengthen their support networks in an effort to enhance diabetes management and ultimately their health. Until nuclear family members could be reunited, extended family members assumed caregiver roles, females in particular. Again, *Family Cohesion* was integral to this process and provided support, guidance, and motivation for diabetes self-management practices.

### Summary

This qualitative descriptive study revealed several socio-cultural influences that impacted diabetes self-management practices for the migrant Latino adult. The familist traditions, central to the Mexican culture, were very evident in interview narratives. These traditions have both positive and negative outcomes on diabetes management.

Social stigma, in relation to a diabetes diagnosis, is likely not exclusive to this population, especially in the current social climate that is quick to blame individuals for creating their own illnesses (Chapple, Ziebland, & McPherson, 2004; McClean, 2005; Sonnenberg, 2005). However, the particular associated negative social expectations and perceptions may well be unique to this cultural group. The discovery associated with diabetes management education (provided to individuals, families and community members) contributed significant insight into the educational needs of this population. Both the perceived lack of education about disease process, and the enthusiasm expressed for a family (rather than individualistic) approach, provided significant insight into the needs of this population. Focusing attention on this one aspect of diabetes management may well be central to improving the health of this population.

#### Limitations

Limitations of this study include the researcher's limited Spanish language ability, recruitment challenges as a result of local events with resulting small sample size, and inadequate exploration of the rural context associated with diabetes self-management.

#### *Spanish Language Capacity of Researcher*

The researcher's limited Spanish language skills must be considered a limitation of this qualitative study despite the skills and expertise of the bilingual, bicultural translator and transcriptionist utilized to enhance the truth value of the findings. Conducting cross-language and cross-cultural research increases the likelihood for the researcher to miss language and meaning nuances present in the data.

### *Recruitment Challenges*

Local immigration raids, occurring before and during participant recruitment, contributed to enrollment challenges because the trust level of “outsiders” was significantly decreased. In addition, an unusually early, long, and prosperous agricultural season impacted the availability of potential research participants due to limited available “free time.” However, the sample of 10 participants was demographically representative (e.g., age, socio-economic status, language capacity) of the Mexican migrant population with type 2 diabetes (NCFH, 2005). Availability of potential study participants may have limited the breadth of data collected. In spite of this smaller than projected sample size, the data generated was extensive and demonstrated saturation of the codes and categories that emerged, contributing to the transferability of the findings.

### *Rural Context*

Rural context was not fully explored as originally planned. Recruitment challenges contributed to this study limitation. Because of this, rural locale did not emerge as a significant component of diabetes management practices or challenges in this study and needs to be explored further to evaluate its potential influence. One aspect, transportation, was described by a minority of participants. This was related to coordinating clinic visits with picking up prescription renewals at the pharmacy, to limit the financial outlay.

### *Implications for Nursing*

The findings from this research study provide new insights to guide nursing practice and research. The Healthy People 2010 (US Department of Health and Human

Services, 2000) goals, with a focus toward decreasing the health disparities of this vulnerable population, call for new knowledge and approaches to guide health practices. The research questions in this study resulted in concept development which provided a deeper understanding of the socio-cultural influences that guide diabetes self-management practices. Utilizing this new knowledge, from the emic perspective, to inform future nursing and healthcare practices will undoubtedly improve the health of this population. Knowing that culturally congruent care and nursing interventions involves much more than an understanding of language and dietary preferences, this research can guide development of interventions and education programs, utilizing culturally appropriate methods (from the emic perspective), to enhance the health of this population.

The knowledge gained from this research can impact clinical care of this population. Clinicians must clarify with individual patients the extent of diabetes education they have received and promote options for further education as appropriate. Additionally, recognizing and acknowledging the social stigma associated with diabetes, for this population, will promote understanding and improve clinician/patient communication. Study findings provide rich information that can be used to tailor clinical care so that it is consistent with the socio-cultural influences that impact diabetes management practices (e.g., include family, in particular the primary female caregiver, and establish community and home based education sessions).

### Implications for Research

This descriptive study provides a foundation for future research not only with the Mexican population, a sub-group of the Latino population, but also with other population sub-groups. Exploration of the socio-cultural influences on disease management in each of these cultural groups would further enhance knowledge and understanding of the unique needs of individuals in such populations. Research in the following areas is indicated: (1) concept development to include social stigma, rural context, illiteracy and health, and population defined health and disease self-management, (2) theory/model testing, (3) novel educational interventions, (4) family and community interventions focusing on concept of “social stigma of disease.”

Further exploration of the concept of “*Stigma of Disease*” is needed. It is anticipated that this concept is not unique to the Mexican population; however the precipitating factors leading to social stigma need to be investigated further. In addition, the rural context, and the potential influences this has on diabetes self-management, will provide further insights into the process of disease management in this population. The concept of illiteracy and its relationship to health, how this population defines health and disease self-management will provide the additional concepts needed for theory/model development. Once these concepts have been developed, the model/theory of diabetes self-management for the Mexican migrant adult that emerges can be tested.

The findings of this study can be used to develop novel educational interventions. Shifting the education focus from the individual to the family and community may well be central to improving the health of this population. Additionally, exploring



interventions to ameliorate the stigma associated with this very prevalent disease is essential. Reducing or eliminating the social stigma of diabetes would likely improve adherence to self-management practices and improve glucose control through the process of stress reduction and social acceptance.

In addition, as the prevalence of type 2 diabetes continues to increase in the younger Mexican population (children and adolescents) attention to this population is warranted. Research focused on a younger population than that represented in this study would provide a mechanism by which to ascertain whether the findings in this study remain consistent in a younger sample.

#### Summary

Chapter V presented the study findings as they related to the three research questions. The limitations and significance to nursing of the research were discussed. Lastly, recommendations for future research were presented.

## APPENDIX A: HUMAN SUBJECTS APPROVAL

Human Subjects Protection Program

THE UNIVERSITY OF  
**ARIZONA**®  
TUCSON ARIZONA

1350 N. Vine Avenue  
P.O. Box 245137  
Tucson, AZ 85724-5137  
(520) 626-6721  
<http://www.irb.arizona.edu>

May 1, 2007

Dawn M. Weiler, PhD Candidate  
Advisor: Janice D. Crist, PhD  
College of Nursing  
P.O. Box 210203

BSC: B07.131 SOCIO-CULTURAL INFLUENCES AND PROCESS OF LIVING WITH DIABETES FOR THE MIGRANT LATINO

Dear Ms. Weiler:

We received your research proposal as cited above. The procedures to be followed in this study pose no more than minimal risk to participating subjects and have been reviewed by the Institutional Review Board (IRB) through an Expedited Review procedure as cited in the regulations issued by the U.S. Department of Health and Human Services [45 CFR Part 46.110(b)(1)] based on their inclusion under *research categories 6 and 7*. As this is not a treatment intervention study, the IRB has waived the statement of Alternative Treatments in the consent form as allowed by 45 CFR 46.116(d)(2). Although full Committee review is not required, a brief summary of the project procedures is submitted to the Committee for their endorsement and/or comment, if any, after administrative approval is granted. This project is approved with an **expiration date of 1 May 2008**. Please make copies of the attached IRB stamped consent documents to consent your subjects.

The Institutional Review Board (IRB) of the University of Arizona has a current *Federalwide Assurance* of compliance, **FWA00004218**, which is on file with the Department of Health and Human Services and covers this activity.

Approval is granted with the understanding that no further changes or additions will be made to the procedures followed without the knowledge and approval of the Human Subjects Committee (IRB) and your College or Departmental Review Committee. Any research related physical or psychological harm to any subject must also be reported to each committee.

A university policy requires that all signed subject consent forms be kept in a permanent file in an area designated for that purpose by the Department Head or comparable authority. This will assure their accessibility in the event that university officials require the information and the principal investigator is unavailable for some reason.

Sincerely yours,



Theodore J. Glatke, Ph.D.

Chair, Social and Behavioral Sciences Human Subjects Committee

TJG/rf

cc: Departmental/College Review Committee

APPENDIX B: CONSENT FORMS

INFORMED CONSENT LATINO MIGRANTS SELF-MANAGEMENT OF  
TYPE 2 DIABETES

CONSENTIMIENTO INFORMADO CUIDADO DE LA DIABETES TIPO 2  
POR PARTE DE LOS TRABAJADORES LATINOS DEL CAMPO

## Informed Consent

### Latino Migrants Self-Management of Type 2 Diabetes

#### Introduction

You are being asked to take part in a research study. The information in this form is being given to you to help you decide if you do or do not want to enroll. The nurse doing this study and her assistant will answer any questions you have and give you more information. If you decide to take part in the study, you will be asked to sign this consent form. A copy of this form will be given to you.

#### What is the purpose of this research study?

The reason for this study is to find out how Mexican Migrants take care of their diabetes and what helps you make these decisions.

#### Why are you being asked to participate?

You are being asked to be in this study because:

1. You are 40 to 65 years old.
2. You are of Mexican background,
3. You have had type 2 diabetes for 1 year or longer,

.

#### How many people will be asked to participate in this study?

About 20 people will be asked to be in this study.

#### What will happen during this study?

If you agree to be in this study, you will:

1. Talk with the nurse doing the study and tell her about what it is like for you to have diabetes and how you care for your diabetes.
2. The interviews will be in Spanish or English, your choice.
3. A translator will be present to help the during the interview.
4. You can decide where you want to be interviewed

#### How long will I be in this study?

About 90 minutes of your time will be needed to complete this interview.

### **Are there any risks to me?**

You may find that the interview makes you tired. You may feel frustrated using a translator during the interview. You can stop being in the study if you get tired or frustrated. There is no physical, financial or employment risk. Your current ability to get health care will not change by being a part of this study.

### **Are there any benefits to me?**

1. You may not get any individual benefit from being in this study.
2. Being in this research study may help doctors, nurses, and hospitals know how to better help you and other people take care of their diabetes.

### **Will there be any costs to me?**

Other than your time, there are no costs to you to be in this study

### **Will I be paid to participate in the study?**

You will not be paid to participate in this study.

### **Will video or audio recordings be made of me during the study?**

We will make an audio recording during the study. This will help the nurse doing the study make sure she has what you answer correct. If you agree to this, please check the box below:

☐

I give my consent to have my interview tape recorded.

### **Will the information that is obtained from me be kept confidential?**

The only people who will know that you were in this study will be the nurse doing the study and her assistant. Their names are: Dawn Weiler, MS, RN, ANP and Juanita Silva, LPN.

1. The information you share will be confidential.
2. Your name will not be used in any reports or articles written about this study.
3. Individuals who have the job of protecting people who agree to be in research studies (Human Subjects Protection Program) and the teachers who are supervising the nurse doing the study may want to look at the information you share. If this happens, the information you share will be given to them but your name will not be included.

### **May I change my mind about being in this study?**

Being in this study is your choice. You may decide to not be in the study. You may decide to stop being in the study at any time. Deciding you do not want to be in the study will have no effect on your employment. Your current ability to get health care will not change if you decide not to be in the study. You can change your mind at any time during the study. Any new information we find out during this study will be given to you. This information could change your decision to be in the study.

### **Whom can I contact for more information?**

You can get more information about the study. You can talk about any concerns you have. You can complain if you want to. To do this, call the nurse doing the study Dawn Weiler, MS, RN, ANP or her assistant Juanita Silva, LPN at 208-466-7869 or 318-1227.

You may also call the University of Arizona Human Subjects Protection office at toll-free number 1-866-278-1455. You can call them if:

1. You have questions about your rights of being in this study.
2. Have questions or concerns.
3. Have complaints about the study.
4. Would like to give information about the study and can not reach the nurse or her assistant.
5. Want to talk to someone other than the nurse and her assistant.

You can also contact the Human Subjects Protection Program by email. Please use the following email address <http://www.irb.arizona.edu/suggestions.php>.

### **Your Signature**

By signing this form, I confirm that

1. I understand the information contained in the form,
2. That the study has been explained to me.
3. That my questions have been answered.
4. I agree to be in this study.
5. I do not give up any of my legal rights by signing this form.

---

Name (Printed)

---

Participant's Signature

---

Date signed

**Statement by person obtaining consent**

I certify that I have explained the research study to the person who has agreed to participate, and that he or she has been informed of the purpose, the procedures, the possible risks and potential benefits associated with participation in this study. Any questions raised have been answered to the participant's satisfaction.

---

Name of study personnel

---

Study personnel Signature

---

Date signed



## Consentimiento Informado

### Cuidado de la diabetes tipo 2 por parte de los trabajadores latinos del campo

#### **Introducción**

Le estamos pidiendo que participe en un estudio de investigación. La información de este formulario se le presenta para ayudarle a decidir si quiere inscribirse o no en este estudio. La enfermera que está haciendo este estudio y su asistente le van a contestar cualquier pregunta que tenga y le van a dar más información. Si decide participar en el estudio, le vamos a pedir que firme este formulario de consentimiento. Se le dará una copia de este formulario.

#### **¿Cuál es el propósito de este estudio de investigación?**

El propósito de este estudio es averiguar cómo los trabajadores del campo cuidan de su diabetes y qué les ayuda a tomar las decisiones de su cuidado.

#### **¿Por qué se le está pidiendo que participe?**

Se le está pidiendo que participe en este estudio por las siguientes razones:

1. Tiene de 40 a 65 años de edad.
2. Es de ascendencia mexicana.
3. Tiene un año o más con la diabetes tipo 2.

#### **¿A cuántas personas se les va a invitar a participar en este estudio?**

Se les va a pedir a más o menos 20 personas que formen parte de este estudio.

#### **¿Qué va a pasar durante este estudio?**

Si usted acepta participar en este estudio:

2. Hablará con la enfermera que está haciendo el estudio y le contará cómo vive usted con la diabetes y de qué manera se cuida con la diabetes.
3. Las entrevistas se llevarán a cabo ya sea en español o inglés, la decisión es suya.
4. Una intérprete estará presente para ayudarle durante la entrevista.
5. Usted puede decidir donde quiere que le entrevistemos.

**¿Durante cuánto tiempo voy a estar participando en este estudio?**

Vamos a necesitar más o menos una hora y media de su tiempo para completar esta entrevista.

**¿Hay algún riesgo para mí?**

Es posible que la entrevista le canse. Puede ser que se sienta frustrado(a) al hacer la entrevista por medio de intérprete. Puede dejar de participar en el estudio si se cansa o se frustra. No hay ningún riesgo físico, económico ni para su trabajo. Su participación en este estudio no cambiará su capacidad actual de obtener cuidado médico.

**¿Hay algún beneficio para mí?**

3. Es posible que no reciba ningún beneficio individual por su participación en este estudio.
4. Su participación en este estudio de investigación puede ayudarles a los médicos, las enfermeras y los hospitales a saber ayudarle a usted y a otras personas a cuidar de la diabetes.

**¿Hay algún costo para mí?**

Aparte de su tiempo, su participación en este estudio no le va a costar nada.

**¿Me van a pagar por participar en el estudio?**

No le vamos a pagar por participar en este estudio.

**¿Me van a grabar en audio o video durante el estudio?**

Vamos a hacer una grabación de audio durante el estudio. Esto le va a ayudar a la enfermera que hace el estudio a cerciorarse que haya anotado correctamente las respuestas de usted. Si está de acuerdo con esto, marque por favor el cuadro que aparece a continuación:

☐

Doy mi consentimiento para que graben mi entrevista.

**¿Se va a mantener confidencial la información que obtengan de mí?**

Las únicas personas que van a saber que usted participó en este estudio son la enfermera que realiza el estudio y su asistente. Sus nombres son: Dawn Weiler, MS, RN, ANP y Juanita Silva, LPN.

4. La información que usted comparta será confidencial.
5. Su nombre no se usará en ningún reporte ni artículo escrito sobre este estudio.

6. Las personas que tienen el trabajo de proteger a las personas que participan en los estudios de investigación (el Programa de Protección de Casos Humanos) y los profesores que supervisan a la enfermera que está haciendo el estudio posiblemente quieran ver la información que usted comparta con nosotras. En ese caso únicamente se dará a conocer la información de su cuidado sin incluir su nombre.

### **¿Puedo cambiar de idea sobre mi participación en este estudio?**

Es decisión de usted participar en este estudio. Puede decidir no participar en el estudio. Puede decidir salirse del estudio en cualquier momento. La decisión de que no quiere participar en el estudio no tendrá ningún efecto sobre su trabajo. Su capacidad de obtener cuidado médico no cambiará si decide no participar en el estudio. Puede cambiar de idea en cualquier momento durante el estudio. Cualquier nueva información que descubramos durante el estudio se la vamos a dar a usted. Esta información podría cambiar su decisión de participar en el estudio.

### **¿Con quién me puedo comunicar para más información?**

Usted puede obtener más información acerca del estudio. Puede hablar sobre cualquier inquietud que tenga. Si quiere puede presentar una queja. Para hacerlo, llame a la enfermera que está realizando el estudio, Dawn Weiler, MS, RN, ANP o a su asistente Juanita Silva, LPN al 466-7869 ó 318-1227.

También puede llamar a la oficina de Protección de Casos Humanos de la Universidad de Arizona al número sin tarifa 1-866-278-1455. Puede llamar a dicha oficina si:

6. Tiene preguntas con respecto a sus derechos de participar en este estudio.
7. Tiene dudas o preguntas.
8. Tiene quejas sobre el estudio.
9. Quiere proveer información acerca del estudio y no puede comunicarse con la enfermera ni con su asistente.
10. Quiere hablar con alguien además de la enfermera y su asistente.

También puede comunicarse con el Programa de Protección de Casos Humanos por medio del correo electrónico. Sírvese usar la siguiente dirección de correo electrónico: <http://www.irb.arizona.edu/suggestions.php>.

### **Su firma**

Al firmar este formulario, yo confirmo que:

6. Entiendo la información contenida en el formulario.
7. Se me ha explicado el estudio.
8. Se han contestado mis preguntas.
9. Estoy de acuerdo con participar en este estudio.

10. No renuncio ni pierdo ninguno de mis derechos legales al firmar este formulario.

\_\_\_\_\_  
Nombre (con letra de molde)

\_\_\_\_\_  
Firma del participante

\_\_\_\_\_  
Fecha de la firma

**Declaración de la persona que pide el consentimiento**

Yo declaro que he explicado el estudio de investigación a la persona que ha aceptado participar en el mismo y que a dicha persona se le ha informado sobre el propósito, los procedimientos, los posibles riesgos y beneficios asociados con la participación en este estudio. Todas las preguntas del participante se han contestado a la satisfacción de éste.

\_\_\_\_\_  
Nombre del personal del estudio

\_\_\_\_\_  
Firma del personal del estudio

\_\_\_\_\_  
Fecha de la firma

APPENDIX C: DEMOGRAPHIC/ACCULTURATION QUESTIONNAIRES

ENGLISH VERSION

SPANISH VERSION

### Demographic/Acculturation Questionnaire

How old are you?

How long have you had diabetes?

Gender: Female \_\_\_\_\_ Male \_\_\_\_\_

Are you currently: Married \_\_\_\_\_ Divorced \_\_\_\_\_ Separated \_\_\_\_\_

Living with a partner but not married \_\_\_\_\_ Single \_\_\_\_\_

What languages are spoken in your home?

What languages do you read?

Where were you born?

Where was your father born?

Where was your mother born?

Where was your mother's mother born?

Where was your mother's father born?

Where was your father's mother born?

Where was your father's father born?

How long have you lived in the United States?

How frequently do you go to Mexico?

Do you receive health care in Mexico?

How long have you been doing migrant work?

How would you rate your ability to pay for necessities?

More than enough \_\_\_\_\_ Just enough \_\_\_\_\_

Almost enough \_\_\_\_\_ Never enough \_\_\_\_\_

### Cuestionario del aspecto demográfico y de la aculturalización

¿Cuántos años tiene usted?

¿Hace cuánto tiempo que padece de la diabetes?

Género: Femenino \_\_\_\_\_ Masculino \_\_\_\_\_

¿Actualmente está?

Casado/a \_\_\_\_\_ Divorciado/a \_\_\_\_\_ Separado/a \_\_\_\_\_ Soltero/a \_\_\_\_\_

Viviendo con una pareja pero no están casados \_\_\_\_\_

¿Qué idiomas hablan en su hogar?

¿Qué idiomas lee usted?

¿Dónde nació?

¿Dónde nació el papá de usted?

¿Dónde nació la mamá de usted?

¿Dónde nació la mamá de la mamá de usted?

¿Dónde nació la mamá de papá de usted?

¿Dónde nació el papá de la mamá de usted?

¿Dónde nació el papá de papá de usted?

¿Cuánto tiempo lleva viviendo usted en los Estados Unidos?

¿Qué tan seguido se va a México?

¿Recibe usted cuidado médico en México?

¿Cuánto tiempo lleva haciendo trabajo de campo en los Estados Unidos?

¿Cómo califica su capacidad para pagar sus necesidades básicas?

Más que suficiente \_\_\_\_\_ Apenas lo suficiente \_\_\_\_\_

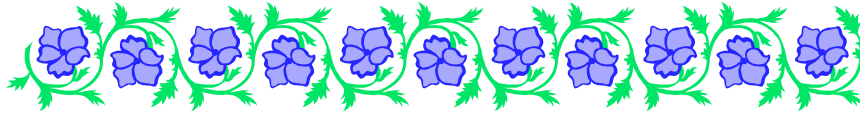
Casi lo suficiente \_\_\_\_\_ Nunca es suficiente \_\_\_\_\_

## APPENDIX D: RECRUITMENT FLYERS

ENGLISH VERSION

SPANISH VERSION





Dawn Weiler, MS, RN, ANP is completing a research project for school. She is interested in interviewing adults of Mexican descent who have type 2 diabetes about how they and their families manage their diabetes.

If you are:

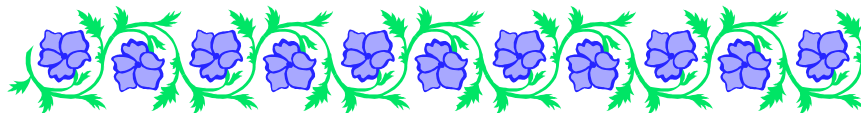
- ▶ 40-65 years old
- ▶ Mexican
- ▶ Have had type 2 diabetes for 1 year or more

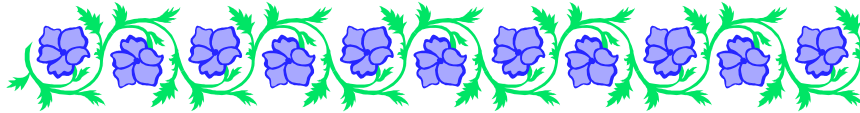
Please ask about being a part of the study.

The interviews can be done in Spanish or English.

If you would like to take part in this study please contact  
Juanita Silva at 466-7869 or 318-1227.

Thank you





**Dawn Weiler es una enfermera con título universitario a nivel maestría que está completando un proyecto de investigación como parte de sus estudios profesionales. Está interesada en entrevistar a adultos de ascendencia mexicana que padezcan la diabetes tipo 2 sobre la forma en que ellos y sus familias controlan la diabetes.**

Si usted:

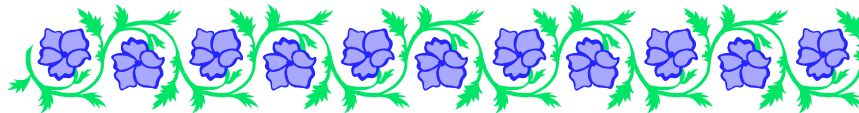
- ▶ Tiene de 40 a 65 años de edad
- ▶ Es mexicano(a)
- ▶ Tiene un año o más con la diabetes tipo 2

Entonces pregunte por favor sobre la posibilidad de participar en este estudio.

Las entrevistas se pueden llevar a cabo en español o en inglés.

Si quiere participar en este estudio llame por favor a Juanita Silva al 466-7869 ó 318-1227.

Gracias



**Spanish Version**

## APPENDIX E: DATA COLLECTION TRANSLATOR TRAINING OUTLINE

### Data Collection Translator Training Outline

1. Protection of Human Subjects Training
  - a. Successful completion of CITI Human Subjects Training Program
  - b. Informed Consent Procedure
  - c. Recruitment Procedure
  - d. Security of collected data
2. Training in Data Collection Methodology by PI and Sponsors
3. Attend training with PI on data collection protocols
  - a. Data collection will be done in participant home or at Terry Reilly Health Services Clinics (participant choice) and in language (Spanish or English) of participant choice.
  - b. Interviews will be audio tape recorded
  - c. Interviews will be transcribed and translated within 48 hours of interviews
  - d. PI and translator will review transcribed and translated data for accuracy within 48 hours of transcription availability
4. Complete minimum of 2 practice interviews
  - a. Self review and critique
  - b. PI and Sponsor review and critique
  - c. Interviewers must be respectful and courteous to the participants who are spending their time on this study. How people are treated will be talked about in the community. We do not want to be labeled as disrespectful, impolite, or otherwise making the experience unpleasant. Our study depends on being able to recruit new participants throughout the study.

## APPENDIX F: INTERVIEW GUIDE

## Interview Guide

### **1. Tell me about having diabetes.**

Potential Prompts:

- a. How did you first find out you have diabetes?
- b. When did you find out you have diabetes?
- c. What does having diabetes mean to you?
- d. What have you been told about diabetes and the things you need to do to control your diabetes?
- e. What kinds of health problems have you experienced as a result of having diabetes?
- f. What worries you about your diabetes?

### **2. What is it like for you to have diabetes?**

Potential Prompts:

- a. How has diabetes influenced your life?
- b. How has diabetes influenced your work?
- c. What kinds of things do you do to care for your diabetes?
  - i. Do they help?
  - ii. How do you tell if your diabetes is under control?
- d. What things are most difficult for you to do?
- e. What things are easiest for you to do?

### **3. Tell me about a time when your diabetes was out of control or you knew things were not going well.**

Potential Prompts:

- a. How did you know if was out of control?
- b. What did you do?
- c. Who did you talk to?
- d. Who helped you and how?

### **4. How have you managed your diabetes over the past week?**

Potential Prompts:

- a. Who has helped you with your diabetes this week?
- b. What challenges did you face with your diabetes this week?
- c. What worked well in caring for your diabetes this week?

### **5. Who do you consider to be part of your family?**

Potential Prompts:

- a. Are they currently living with you?
- b. If not, where are they living?
- c. Who are you currently living with?
- d. How does this influence your diabetes management?

**6. In what ways does your family life influence your diabetes management?**

Potential Prompts:

- a. What does your family think about your diabetes?
- b. Who helps you take care of your diabetes?
- c. What does having diabetes mean to your family?
- d. In what ways does your family help you?
- e. In what ways do they make things harder for you?

## Guía De la Entrevista

### 1. Dígame acerca de tener diabetes.

- a. Como se dio cuenta la primera vez que usted tiene diabetes ?
- b. Cuando se dio cuenta que usted tiene diabetes ?
- c. Que es lo que significa para usted tener diabetes ?
- d. Que le han dicho acerca de su diabetes y que cosas necesita hacer para controlar su diabetes ?
- e. Que clase de problemas de salud ha experimentado como resultado de tener diabetes ?
- f. Que le preocupa acerca de su diabetes ?

### 2. Como es para usted el tener diabetes ?

- a. Como ha influido el diabetes en su vida ?
- b. Como ha influido el diabetes en su trabajo ?
- c. Que clase de cosas hace para cuidar de su diabetes ?
  - i. Le ayudan ?
  - ii. Como sabe si su diabetes esta bajo control ?
- d. Que cosas son mas dificiles que tiene que hacer ?
- e. Que cosas son las mas faciles que tiene que hacer ?

### 3. Dígame de unavez en la cual su diabetes estaba afuera de control o que usted sabia que las cosas no estaban bien?

- a. Como sabia que estaba afuera de control ?
- b. Que hizo usted ?
- c. Con quien hablo ?
- d. Quien le ayudo y como ?

### 4. A quien considera como parte de su familia ?

- a. Viven al presente con usted?
- b. Si no, donde estan viviendo?
- c. Con quien vive al presente ?
- d. Como influye esto en el manejo de su diabetes ?

### 5. Como a manejado su diabetes la semana pasada?

- a. Quien le a ayudado esta semana con su diabetes?
- b. Que problemas encuentro con su diabetes esta semana?
- c. Que trabajo bien en su tratamiento de diabetes esta semana?

### 6. De que maneras ve de su familia influencia su diabetes?

- a. Que piensa su familia de su diabetes ?
- b. Quien le ayuda en el cuidado de su diabetes ?
- c. Que significa para su familia el tener diabetes ?
- d. De que maneras le ayuda su familia ?
- e. De que maneras le hacen las cosas mas dificiles para usted ?



## APPENDIX G: LETTERS OF SUPPORT



## TERRY REILLY HEALTH SERVICES

*"Serving You With Respect"*

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Peggy Tallman  
Luis Urias

Erwin Teuber, Ph.D.  
Executive Director

Jonathan Bowman, M.D.  
Medical Director

June 14, 2006

To Whom It May Concern:

It is my pleasure to write this letter in support of research with Mexican immigrants with diabetes, as proposed by Dawn M Weiler, MS, RN, ANP. Research focused on identifying mechanisms for improving the health of this high-risk population is potentially of great benefit to our health center and other health care providers across the country, as well as this target population of course.

Terry Reilly Health Services is a community based non-profit corporation which is dedicated to providing quality, comprehensive health care to more than 25,000 individuals who face challenges in accessing healthcare due to rural isolation, financial barriers, or cultural sensitivity. Approximately 40% of our patient population is Hispanic and 64% are between the ages of 20-64 thus providing a readily available and accessible patient population consistent with Dawn's research plan.

Additionally, Terry Reilly Health Services maintains an active outreach program providing services in the migrant farmworker camps in the region, again providing an available and accessible patient population for completion of Dawn's research plan. Dawn is welcome to utilize Terry Reilly Health Services Clinics for participant recruitment with the assistance of our healthcare providers and staff. We are also in a position to provide access to individuals who are bilingual in Spanish and English to assist Dawn in completing her research data collection.

We anticipate the research findings will be valuable for program development within our five-clinic system in our ongoing efforts to improve the health of our Hispanic population with Type II diabetes. Many members of our staff and Board of Directors will be happy to assist Dawn in any way we can, because of our dedication to reducing health disparities among this target population. We look forward to an ongoing relationship with Dawn and her future research endeavors as our clinic and the patients we serve will undoubtedly benefit from the knowledge gained. If I can be of further assistance, do not hesitate to contact me.

Respectfully Submitted

Erwin Teuber, PhD  
Executive Director

Administration Office  
211 16th Ave. N.  
PO Box 9  
Nampa, Idaho 83653-0009  
(208) 467-4431  
FAX (208) 467-7694  
e-mail admin@trhs.org

Nampa Clinic  
223 16th Ave. N.  
PO Box 9  
Nampa, Idaho 83653-0009  
(208) 466-7869  
TDD (208) 467-4432  
FAX (208) 466-5359

Homedale Clinic  
119 E. Idaho, Box 1058  
Homedale, Idaho 83628  
(208) 337-3189  
TDD (208) 337-3189  
FAX (208) 337-4623

Marsing Clinic  
201 Main, Box 515  
Marsing, Idaho 83639  
(208) 896-4159  
TDD (208) 898-4159  
FAX (208) 896-4917

Boise Clinic  
849 La Cassia  
Boise, Idaho 83705  
(208) 344-3512  
TDD (208) 344-3512  
FAX (208) 344-4896



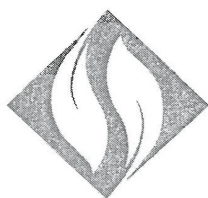
United Way - A Partner in Fund Raising

Boise Dental  
103 W. Idaho, Suite A  
Boise, ID 83702  
(208) 336-3801  
FAX (208) 336-8682

Sane Ada  
1716 S. Roosevelt  
Boise, Idaho 83705  
(208) 345-1170  
FAX (208) 345-3502

SANE Canyon  
1224 1st St. So  
Suite 103  
Nampa, Idaho 83687  
(208) 463-2314  
FAX (208) 463-4396

Visit Our Web Site at <http://www.trhs.org>



# SALTZER

## MEDICAL GROUP

4400 E. Flamingo Ave. • Nampa, Idaho 83687 • (208) 288-4970

July 10, 2006

To Whom It May Concern:

I am writing on behalf of Dawn Weiler who is proposing a study of the social impact and barriers to self-management of diabetes in Hispanic migrant workers. I can verify that Dawn is very proficient and current in diabetes physiology, care, standard practices and teaching self-management of chronic disease. I have known & worked with Dawn since the early 1990's, both as a peer and a client. She has had type 1 diabetes since childhood and has done an excellent job living with and controlling her difficult condition. She is also a nursing professional who has worked with, instructed and case-managed others with diabetes. She is currently wearing an insulin pump and makes all her own diabetes management decisions. She is knowledgeable in the latest research and implementation of that research for both her own personal needs as well as helping others.

I can hardly recommend Dawn's expertise and ability to accomplish whatever she undertakes, especially in the field of diabetes. I am also looking forward to any of her findings to help me improve outcomes for the patients in my diabetes practice. Also, I have offered to be of assistance to her if needed.

Sincerely,

*Liz Salisbury RN CDE*

Liz Salisbury RN CDE  
Diabetes Educator & Program Coordinator  
ADA Recognized LifeSkills Diabetes Education Program  
Mercy Medical Center  
Saltzer Medical Group  
4400 E Flamingo Avenue  
Nampa ID 83687  
(208) 288.4969

215 E. Hawaii Ave.  
Nampa, Idaho 83686  
(208) 463-3000

745 S. Progress Ave.  
Meridian, Idaho 83642  
(208) 884-2900

520 S. Eagle Rd., Ste. 1245  
Meridian, ID 83642  
(208) 884-2900

1818 S. 10<sup>th</sup> Ave., Ste. 220  
Caldwell, Idaho 83605  
(208) 455-2355

*Liz Salisbury. RN. CDE*

2525 S. Middleton Road  
Nampa, ID 83686  
May 22, 2006

To Whom It May Concern:

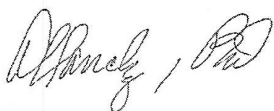
It is with great pleasure I write this letter of support for the research proposed by Dawn Weiler, MS, RN, ANP. Currently available research focused on improving the health outcomes for the Latino Migrant population is extremely limited, and Ms. Weiler's proposal will help address this need.

The population of interest to Ms Weiler, Mexican Migrants, is readily available and accessible in southwest Idaho. As a member of the Hispanic community and the Hispanic Caucus for Research and Education, I will be available to Ms Weiler for consultation throughout her research training and implementation. In addition, I will happily assist with participant recruitment.

Ms. Weiler's research, focused on the Social Processes of Living with Diabetes for the Latino migrant population, will provide much-needed information for intervention development to improve the health of this population. I look forward to working collaboratively with Ms. Weiler on this and future research endeavors.

If I can be of further assistance, please contact me.

Respectfully submitted,



Al Sanchez, Ph.D.  
208-467-8814  
aasanchez@nnu.edu





## TERRY REILLY HEALTH SERVICES

*"Serving You With Respect"*

Board of Directors

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-1-

Denisse Clegg, RN, BSN  
223 16<sup>th</sup> Ave. North  
PO Box 9  
Nampa, ID 83653

May 22, 2006

Re: *Research project: the social process of living diabetes in Hispanic population*

To whom it may concern:

As the RN Case Manager of Terry Reilly Health Services (TRHS) for chronic disease patients, I strongly support this great research project directed by Dawn Weiler, ANP. Currently, I am working with the Hispanic population that is facing a very challenging diabetes problem. In order to provide excellent quality care for Hispanic diabetic patients, we must have a comprehensive understanding of their unique cultural diversity and health care needs. Diabetes management involves lifestyle modifications including changes in diet, physical activity, social activities, and financial position due to the high cost of treatments. In my own experience, I have seen how difficult it is for the Hispanic diabetic patients and their own families to overcome these changes within the bounds of the Hispanic culture.

This research project will be an excellent asset for TRHS due to the high concentration of Hispanic diabetic population and an existing diabetes team (multidisciplinary health care providers) that it is striving to improve the care that they offer.

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*Denisse Clegg, BSN, RN, Nurse Case Manager*



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This research will assist TRHS to develop unique and innovative ways to improve diabetes education, focused clinics, and case management services for diabetic Hispanics.

In addition, this research will provide a comprehensive assessment on how diabetes will influence various aspects of Hispanic culture such as eating habits, family relationships, values, beliefs, and work habits.

As the RN Case Manager I will use the research to create a more efficient assessment tool for the Hispanic diabetic population to assess and better meet their health and social needs. The research would also help strengthen cultural competencies among employees to better understand their patients and how their services can help them.

In conclusion, I am confident that this research will have a very positive impact on our diabetic patients. Thanks to projects like this one, we are able to serve our Hispanic diabetic population in meeting their health needs and improving their own outlook and thereby reducing the long-term effects of diabetes.

Sincerely,

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